1968

# WATER SUPPLY OUTLOOK FOR MONTANA

and

FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

UNITED STATES DEPARTMENT of AGRICULTURE···SOIL CONSERVATION SERVICE,
and
MONTANA AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the agencies named above in cooperation with Federal, State, and private organizations listed on the inside back cover of this report.

## SNOW PILLOW RECORDS 1968 WATER YEAR

## TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season as they affect runoff will add to be an effective average. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1400 snow courses in Western United States and in the Columbia Basin in British Columbia. In the near future, it is anticipated that automatic snow water equivalent sensing devices along with radio telemetry will provide a continuous record of snow water equivalent at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data or reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.


## PUBLISHED BY SOIL CONSERVATION SERVICE

D. A. WILLIAMS, Administrator

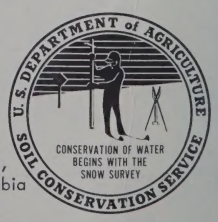
The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, Western Regional Technical Service Center, Room 507, 701 N. W. Glisan, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

| STATE | ADDRESS |
|---|---|
| Alaska | P. O. Box "F", Palmer, Alaska 99645 |
| Arizona | 6029 Federal Building, Phoenix, Arizona 85205 |
| Colorado (N. Mex.) | 12417 Federal Building, Denver, Colorado 80202 |
| Idaho | P. O. Box 38, Boise, Idaho 83707 |
| Montana | P. O. Box 98, Bozeman, Montana 59715 |
| Nevada | P. O. Box 4850, Reno Nevada 89505 |
| Oregon | 1218 S. W. Washington St., Portland, Oregon 97205 |
| Utah | 4012 Federal Building, Salt Lake City, Utah 84111 |
| Washington | 360 Federal Office Building, Spokane, Washington 99201 |
| Wyoming | P. O. Box 340, Casper, Wyoming 82602 |

## PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia

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FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS


*Issued by*

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MONTANA FALL RESUME'
October 1, 1968

April-September Streamflow

In the Columbia River drainage, streamflow was generally 80 to 90 percent average. Exceptions were the Blackfoot drainage with about 65 percent average flow and the Bitterroot drainage with about 95 percent average runoff.

Flow of the Missouri River at its headwaters was about 125 percent average. The Sun and Marias Rivers had flows in the 70 to 60 percent range. The Milk River produced a little less than average runoff. The Yellowstone drainage above Billings had 122 percent average runoff.

Fall Soil Moisture

All mountain soils have average to above average stored moisture. In many areas snow accumulation will occur on soils near or at field capacity.

Reservoir Storage

Carryover storage in irrigation reservoirs is generally near or above average. One exception is the Camas Reservoir group west of the Flathead River, where good spring runoff is necessary to insure adequate irrigation supplies next summer.

Storage in larger multipurpose reservoirs is above average.

SNOW COURSES AND
SOIL MOISTURE STATIONS
MONTANA
LEGEND
SNOW SURVEY COURSE
SOIL MOISTURE STATION
AERIAL MARKER
SNOW COURSE & SOIL MOISTURE STATION
SNOW COURSE & AERIAL MARKER
SCALE IN MILES
50 0 50 100
15 14 13 12 11 10 9 8 7 6 5 4
A B C D E F
C A N A D A
I D A H O
W Y O M I N G
S O U T H D A K O T A
Kootenai
Marias
Milk
Teton
Sun
Main
Stem
Flathead
Missouri
Judith
Musselshell
Blackfoot
Clark Fork
Bitterroot
Big Hole
Jefferson
Madison
Gallatin
Beaverhead
Upper Yellowstone
Lower Yellowstone
Libby
Columbia Falls
Kalispell
Heron
Polson
Thompson Falls
Plains
St. Regis
Missoula
Ovando
Helena
Hamilton
Darby
Anaconda
Butte
Dillon
Great Falls
Havre
Glasgow
Lewistown
Harlowton
Wilsall
Livingston
Billings
Red Lodge
Miles City
TIBER RES.
HUNGRY HORSE RES.
GIBSON RES.
CANYON FERRY RES.
FORT PECK RESERVOIR
Flathead Lake


15A01 15A02 15B02 15B11 15B15 15B16 15C01 15C10
14A03 14A04 14A05 14A06 14A07 14A09 14A10 14A11 14B01 14B03 14C04 14C05 14C07 14C08 14C10 14C13 14D01 14D02 14D03
13A02 13A03 13A05 13A06 13A07 13A08 13A11 13A14 13A15 13A16 13A17 13A18 13A19
13B01 13B02 13B03 13B04 13B05 13B07 13B10 13B11 13B12 13B13 13B19
13C01 13C02 13C03 13C04 13C05 13C06 13C07 13C08 13C09 13C10 13C11 13C12 13C13 13C14 13C16 13C18 13C21 13C22
13D01 13D02 13D08 13D09 13D10 13D15 13D16 13D18 13D19 13D20 13D21 13D22 13D23 13D24 13E01 13E02 13E22 13E23
12A01 12B03 12B04 12B06 12B07 12B09 12B10 12B11 12C01 12C02 12C03 12C04 12C05 12C06 12C07 12C08 12C09 12C10 12C11 12D01 12D04 12D05
12E01 12E03 12E04 12E05 12E06 12E07
11C01 11D02 11D03 11D04 11D05 11D07 11D08 11D09 11D10 11D11 11D12 11D13 11D14 11D15
11E03 11E04 11E05 11E06 11E07 11E08 11E09 11E10 11E11 11E12 11E20 11E21 11E22 11E23 11E24 11E25 11E26 11E27 11E28 11E29 11E30 11E31
10C01 10C02 10C03 10C05 10C06 10C07 10C08 10C09
10D01 10D03 10D04 10D05 10D06 10D07 10D10 10D11 10D12 10D13 10D14 10D15 10D16 10D18
10E01 10E03 10E04 10E05 10E06 10E07
9A01 9C01 9C02 9C03 9D01 9D02 9D04 9D05 9D06 9D07 9D08 9E01

# INDEX to MONTANA SNOW COURSES and SOIL MOISTURE STATIONS

## SNOW COURSES

### COLUMBIA RIVER BASIN

| Drainage Basin & Course Name | Number | Elev. | Sec. | Twp. | Range | Record Began | Measuring Dates 1/ | Meas. By 2/ |
|---|---|---|---|---|---|---|---|---|
| **KOOTENAI RIVER** | | | | | | | | |
| Baree Creek | 15B11 | 5500 | 36 | 26N | 31W | 1956 | 3,4,5,$5\frac{1}{2}$ | 2 |
| Baree Midway | 15B16 | 4600 | 31 | 26N | 30W | 1965 | 3,4,5,$5\frac{1}{2}$ | 2 |
| Baree Trail | 15B15 | 3800 | 5 | 25N | 30W | 1965 | 3,4,5,$5\frac{1}{2}$ | 2 |
| Brush Creek | 14A04 | 5000 | 12 | 30N | 26W | 1937 | 3,4,5 | 1,2 |
| Graves Creek | 14A11 | 4300 | 1 | 30N | 25W | 1965 | 3,4,5,$5\frac{1}{2}$,6 | 1,2 |
| Red Mountain | 15A01 | 6000 | 4 | 36N | 29W | 1937 | 3,4,5,$5\frac{1}{2}$,6 | 1,2 |
| Wessel Divide | 14A07 | 5450 | 20 | 37N | 24W | 1937 | 3,4,5,$5\frac{1}{2}$,6 | 1,2 |
| **FLATHEAD RIVER** | | | | | | | | |
| Bascon Peak | 14B03 | 5150 | 11 | 24N | 25W | 1961 | 3,4,5 | 1,5 |
| Beaver Lake | 13A11 | 5900 | 31 | 28N | 11W | 1964 | 3,4,5 | 2 |
| Big Creek | 13B03 | 6750 | 7 | 22N | 18W | 1941 | 3,4,5, 6 | 1,5 |
| Camp Misery | 13A17 | 6400 | 30 | 28N | 18W | 1962 | 3,4,5 | 1,2 |
| Desert Mountain | 13A02 | 5600 | 24 | 31N | 19W | 1937 | 1,2,3,4,5, 6 | 1,2 |
| Fatty Creek | 13B04 | 5500 | 8 | 22N | 18W | 1962 | 3,4,5, 6 | 1,5 |
| Flattop Mountain | 13A19 | 6300 | 12 | 35N | 18W | 1968 | 1,2,3,4,5, 6 | 1,6 |
| Griffin Creek Divide | 14A09 | 5150 | 11 | 28N | 25W | 1960 | 3,4,5 | 1,5 |
| Gunsight Lake | 13B12 | 6300 | 35 | 26N | 17W | 1964 | 3,4,5 | 1 |
| Hell Roaring Divide | 14A03 | 5770 | 32 | 32N | 22W | 1942 | 1,2,3,4,5,$5\frac{1}{2}$,6 | 2 |
| Holbrook | 13B13 | 4530 | 18 | 21N | 13W | 1951 | 1,2,3,4,5 | 1,2 |
| Kishennehn | 14A06 | 3890 | 14 | 37N | 22W | 1954 | 3,4 | 6 |
| Logan Creek | 14A05 | 4300 | 34 | 30N | 24W | 1937 | 3,4,5 | 1,2 |
| Marias Pass | 13A05 | 5250 | 34 | 30N | 14W | 1934 | 1,2,3,4,5 | 2 |
| Mineral Creek | 13A16 | 4000 | 29 | 35N | 17W | 1957 | 3,4,5 | 6 |
| North Fork Jocko | 13B07 | 6330 | 3 | 17N | 17W | 1941 | 3,4,5,$5\frac{1}{2}$,6 | 1,5 |
| Spotted Bear Mountain | 13B02 | 7000 | 23 | 25N | 15W | 1948 | 1,2,3,4,5 | 1 |
| Trinkus Lake | 13B01 | 6100 | 9 | 25N | 17W | 1948 | 3,4,5 | 1 |
| Twin Creeks | 13B11 | 5850 | 24 | 26N | 16W | 1951 | 1,2,3,4,5 | 1 |
| Upper Holland Lake | 13B05 | 7000 | 28 | 20N | 15W | 1948 | 3,4,5 | 1 |
| **CLARK FORK RIVER** | | | | | | | | |
| Black Pine | 13C13 | 7100 | 26 | 8N | 15W | 1959 | 1,2,3,4,5,$5\frac{1}{2}$,6 | 1,2 |
| Copper Creek | 12B10 | 5700 | 1 | 15N | 9W | 1962 | 3,4,5 | 1,2 |
| Cotter Mine | 12B11 | 6250 | 2 | 15N | 9W | 1962 | 3,4,5 | 1,2 |
| Coyote Hill | 13B10 | 4200 | 12 | 18N | 16W | 1947 | 1,2,3,4,5 | 1,2 |
| El Dorado Mine | 13C09 | 7800 | 23 | 8N | 12W | 1949 | 3,4 | 1 |
| Fred Burr Pass | 13C11 | 8000 | 12 | 6N | 13W | 1957 | 3,4,5 | 1 |
| Gold Creek Lake | 13C10 | 7200 | 14 | 8N | 12W | 1949 | 3,4 | 1 |
| Heart Lake Trail | 14C10 | 4800 | 11 | 14N | 27W | 1965 | 3,4,5 | 1,2 |
| Hoodoo Basin | 15C10 | 6000 | 17 | 14N | 27W | 1967 | 1,2,3,4,5,$5\frac{1}{2}$,6 | 1,2 |
| Hoodoo Creek | 15C01 | 5900 | 16 | 14N | 27W | 1937 | 1,2,3,4,5 | 1,2 |
| Intergaard | 13C04 | 6450 | 6 | 4N | 13W | 1936 | 2,3,4,5 | 4 |
| Lubrecht Forest No. 3 | 13C21 | 5450 | 19 | 13N | 14W | 1951 | 1,2,3,4,5 | 8 |
| Lubrecht Forest No. 4 | 13C22 | 4650 | 23 | 13N | 15W | 1951 | 1,2,3,4,5 | 8 |
| Lubrecht Forest No. 6 | 13C08 | 4040 | 11 | 13N | 15W | 1951 | 1,2,3,4,5 | 8 |
| Red Lion | 13C12 | 7100 | 22 | 6N | 13W | 1958 | 3,4,5 | 1 |
| Skalkaho Summit | 13C03 | 7260 | 30 | 6N | 17W | 1937 | 3,4,5,$5\frac{1}{2}$,6 | 1 |
| Slide Rock Mountain | 13C02 | 7100 | 35 | 10N | 16W | 1937 | 3,4,5 | 1 |
| Southern Cross | 13C05 | 6500 | 8 | 5N | 13W | 1936 | 2,3,4 | 4 |
| Spring Gulch | 13C18 | 6000 | 12 | 14N | 13W | 1961 | 1,2,3,4,5 | 8 |
| Storm Lake | 13C07 | 7780 | 19 | 4N | 13W | 1939 | 1,2,3,4,5 | 1 |
| Stuart Mill | 13C06 | 6500 | 19 | 5N | 13W | 1936 | 2,3,4 | 4 |
| Stuart Mountain | 13C01 | 7400 | 6 | 6N | 13W | 1936 | 1,2,3,4,5,$5\frac{1}{2}$,6 | 8 |
| TV Mountain | 14B01 | 6800 | 33 | 15N | 19W | 1956 | 1,2,3,4,5,$5\frac{1}{2}$,6 | 8 |
| **BITTERROOT RIVER** | | | | | | | | |
| Ambrose | 13C16 | 6480 | 28 | 9N | 18W | 1960 | 3,4,5 | 1 |
| East Fork R.S. | 13D01 | 5400 | 16 | 2N | 17W | 1937 | 3,4 | 1 |
| Gibbons Pass | 13D02 | 7100 | 4 | 2S | 19W | 1934 | 1,2,3,4,5,$5\frac{1}{2}$,6 | 1,3 |
| Lost Horse | 14C07 | 5940 | 5 | 4N | 23W | 1960 | 3,4,5,$5\frac{1}{2}$,6 | 1 |
| Nez Perce Camp | 14D02 | 5680 | 19 | 1S | 23W | 1937 | 3,4,5 | 1 |
| Nez Perce Pass | 14D01 | 6570 | 25 | 1S | 22W | 1937 | 3,4,5 | 1 |
| Saddle Mountain | 13D22 | 7940 | 5 | 2S | 19W | 1965 | 3,4,5,$5\frac{1}{2}$,6 | 1 |
| Twelvemile Creek | 14C13 | 5600 | 34 | 5N | 23W | 1968 | 1,2,3,4,5,$5\frac{1}{2}$,6 | 1 |
| Twin Lakes | 14C08 | 6510 | 32 | 5N | 23W | 1960 | 3,4,5,$5\frac{1}{2}$,6 | 1 |
| **ST. MARY RIVER BASIN** | | | | | | | | |
| Hudson Bay Divide | 13A18 | 5800 | 24 | 34N | 14W | 1963 | 3,4,5 | 3 |
| Iceberg Lake No. 3 | 13A03 | 5600 | 1 | 35N | 17W | 1922 | 5 | 3,9 |
| Josephine Lower No. 9 | 13A14 | 4900 | 22 | 35N | 16W | 1955 | 5 | 3,9 |
| Mount Allen No. 7 | 13A07 | 5700 | 27 | 35N | 16W | 1922 | 5 | 3,9 |
| Pitagan Pass No. 6 | 13A06 | 5500 | 27 | 35N | 16W | 1922 | 5 | 3,9 |
| Ptarmigan No. 8 | 13A08 | 5800 | 36 | 36N | 17W | 1937 | 5 | 3,9 |

### MISSOURI RIVER BASIN

| Drainage Basin & Course Name | Number | Elev. | Sec. | Twp. | Range | Record Began | Measuring Dates 1/ | Meas. By 2/ |
|---|---|---|---|---|---|---|---|---|
| **BEAVERHEAD RIVER** | | | | | | | | |
| Bloody Dick | 13D10 | 7600 | 12 | 8S | 16W | 1948 | 3,4,5 | 1 |
| Carter Creek | 12D04 | 7400 | 22 | 8S | 7W | 1963 | 2,3,4 | 1 |
| Dad Creek Lake | 13E22 | 6400 | 24 | 12S | 13W | 1965 | 3,4,5 | 1 |
| Elk Horn Springs | 13D15 | 7800 | 21 | 4S | 12W | 1935 | 3,4,5 | 3 |
| Gold Stone | 13D09 | 8100 | 11 | 8S | 16W | 1948 | 3,4,5 | 1 |
| Lakeview Canyon | 11B04 | 6930 | 26 | 14S | 2W | 1948 | 3,4,5 | 10 |
| Lakeview Ridge | 11B03 | 7400 | 27 | 14S | 2W | 1948 | 3,4,5 | 10 |
| Lemhi Pass | 13E01 | 7480 | 9 | 10S | 15W | 1948 | 3,4 | 1 |
| Lemhi Ridge | 13E23 | 8100 | 4 | 10S | 15W | 1967 | 3,4 | 1 |
| Trail Creek | 13E02 | 7090 | 15 | 10S | 15W | 1948 | 3,4 | 1 |
| White Pine Ridge | 12E01 | 8850 | 18 | 14S | 9W | 1948 | 3,4,5 | 1 |
| **RUBY RIVER** | | | | | | | | |
| Branham Lakes | 11D14 | 8850 | 5 | 4S | 3W | 1967 | 3,4,5 | 1,12 |
| Clover Meadow | 11D08 | 8600 | 28 | 9S | 2W | 1963 | 3,4,5 | 1 |
| Divide | 12B07 | 7900 | 14 | 12S | 4W | 1963 | 3,4,5 | 1 |
| Middle Mill Creek | 11D15 | 7850 | 17 | 4S | 3W | 1967 | 3,4,5 | 1,12 |
| Notch | 12B06 | 8500 | 18 | 11S | 4W | 1963 | 3,4,5 | 1 |
| Smuggler Mine | 12D05 | 6960 | 24 | 4S | 3W | 1967 | 3,4,5 | 1,12 |
| **BIG HOLE RIVER** | | | | | | | | |
| Abundance Lake | 13D20 | 8800 | 7 | 3S | 11W | 1963 | 3,4,5 | 1 |
| Darkhorse Lake | 13D19 | 8600 | 4 | 8S | 16W | 1963 | 3,4,5 | 1 |
| Foolhen | 13D21 | 8280 | 11 | 1S | 13W | 1963 | 3,4,5 | 1 |
| Jehnke Creek | 13D08 | 7340 | 25 | 7S | 16W | 1948 | 3,4,5 | 1 |
| Palisade Creek | 13D23 | 8450 | 3 | 2S | 15W | 1967 | 3,4,5 | 1 |
| Slag-a-melt Lake | 13D24 | 8750 | 29 | 5S | 17W | 1968 | 3,4,5 | 1 |
| **JEFFERSON RIVER** | | | | | | | | |
| Berry Meadow | 12C07 | 7300 | 8 | 5N | 5W | 1962 | 3,4,5 | 1 |
| Copper Landing | 12C09 | 7700 | 13 | 3N | 7W | 1966 | 2,3,4,5 | 4 |
| Nez Perce Creek | 12C10 | 6500 | 16 | 4N | 6W | 1967 | 2,3,4,5 | 4 |
| Picnic Grounds | 12C06 | 6500 | 21 | 5N | 6W | 1941 | 2,3,4 | 4 |
| Pipestone Pass | 12D01 | 7200 | 10 | 1N | 7W | 1938 | 1,2,3,4,5 | 1 |
| Rocker Peak | 12C11 | 8000 | 17 | 7N | 5W | 1968 | 1,2,3,4,5 | 1 |
| **MADISON RIVER** | | | | | | | | |
| Call Road | 11D07 | 8050 | 21 | 8S | 2W | 1962 | 3,4,5 | 1 |
| Four Mile | 11D12 | 6900 | 5 | 4S | 2W | 1965 | 3,4,5 | 1 |
| Freezeout Lake | 11E25 | 7200 | 6 | 12S | 1E | 1965 | 3,4,5,$5\frac{1}{2}$,6 | 2 |
| Freezeout Mountain | 11E26 | 8250 | 26 | 11S | 1W | 1965 | 3,4,5,$5\frac{1}{2}$,6 | 2 |
| Hebgen Dam | 11E05 | 6550 | 22 | 11S | 3E | 1934 | 1,2,3,4,5 | 3 |
| Jack Creek | 11D05 | 7500 | 13 | 6S | 1E | 1961 | 3,4 | 1 |
| Lake Creek | 11E22 | 6100 | 27 | 11S | 1E | 1965 | 3,4,5,$5\frac{1}{2}$,6 | 2 |
| Lion Mountain | 11E28 | 8760 | 23 | 11S | 2W | 1967 | 1,2,3,4,5,$5\frac{1}{2}$,6 | 2 |
| Lower Twin | 11D11 | 7900 | 12 | 4S | 3W | 1965 | 3,4,5 | 1 |
| Madison Plateau | 11E31 | 7750 | 28 | 14S | 5E | 1968 | 1,2,3,4,5,$5\frac{1}{2}$,6 | 1,2 |
| Meridian Creek | 11E23 | 7000 | 31 | 12S | 1E | 1965 | 3,4,5,$5\frac{1}{2}$,6 | 2 |
| North Meadow | 11D03 | 7500 | 24 | 3S | 3W | 1961 | 3,4,5 | 1 |
| Potosagaton Park | 11E21 | 7150 | 33 | 10S | 1E | 1965 | 3,4,5 | 2 |
| Sentinel Creek | 11E20 | 8300 | 17 | 10S | 3E | 1965 | 3,4,5 | 2 |
| Tepee Creek | 11E24 | 8000 | 15 | 12S | 1W | 1965 | 3,4,5,$5\frac{1}{2}$,6 | 2 |
| Upper West Fork | 11E27 | 8750 | 6 | 12S | 2W | 1966 | 3,4,5,$5\frac{1}{2}$,6 | 2 |
| West Yellowstone | 11E07 | 6700 | 34 | 13S | 5E | 1934 | 1,2,3,4,5 | 1,3,6 |
| Whiskey Creek | 11E30 | 6800 | 19 | 14S | 5E | 1967 | 3,4,5 | 2 |
| **GALLATIN RIVER** | | | | | | | | |
| Arch Falls | 10D14 | 7350 | 3 | 5S | 6E | 1963 | 1,2,3,4,5,$5\frac{1}{2}$,6 | 1 |
| Bear Basin | 11D09 | 8150 | 9 | 6S | 3E | 1963 | 3,4,5 | 1 |
| Bridger Bowl | 10D15 | 7250 | 25 | 1N | 6E | 1965 | 1,2,3,4,5,$5\frac{1}{2}$,6 | 1 |
| Carrot Basin | 11E29 | 9000 | 18 | 10S | 4E | 1967 | 1,2,3,4,5, 6 | 2 |
| Devil's Slide | 10D04 | 8100 | 14 | 5S | 6E | 1935 | 1,2,3,4,5,$5\frac{1}{2}$,6 | 1 |
| Hood Meadow | 10D03 | 6400 | 22 | 4S | 6E | 1935 | 2,3,4,5,$5\frac{1}{2}$,6 | 1 |
| Lick Creek | 10D13 | 6860 | 10 | 4S | 6E | 1964 | 1,2,3,4,5,$5\frac{1}{2}$,6 | 1 |
| Little Park | 11D10 | 7400 | 22 | 6S | 3E | 1963 | 3,4,5 | 1 |
| Maynard Creek | 12D18 | 6210 | 19 | 1N | 7E | 1967 | 1,2,3,4,5,$5\frac{1}{2}$,6 | 1 |
| New World | 10D01 | 6700 | 24 | 3S | 6E | 1939 | 2,3,4 | 1 |
| Shower Falls | 10D16 | 8100 | 14 | 5S | 6E | 1966 | 1,2,3,4,5,$5\frac{1}{2}$,6 | 1 |
| Taylor Peaks | 11D13 | 8500 | 26 | 9S | 2E | 1967 | 3,4,5 | 1 |
| Twenty-One Mile | 11E06 | 7150 | 1 | 11S | 5E | 1934 | 1,2,3,4,5 | 3 |
| **MISSOURI RIVER MAIN STEM** | | | | | | | | |
| Boulder Mountain | 11C01 | 7950 | 1 | 9N | 3E | 1963 | 3,4,5 | 1 |
| Chessman Reservoir | 12C05 | 6200 | 2 | 8N | 5W | 1936 | 1,2,3,4,5 | 3 |
| Deadman Creek | 10C09 | 6450 | 23 | 12N | 8E | 1966 | 3,4,5,$5\frac{1}{2}$,6 | 1 |
| Elk Peak | 10C07 | 8000 | 10 | 8N | 8E | 1963 | 3,4,5 | 1 |
| Grasshopper | 10C02 | 7000 | 19 | 9N | 8E | 1938 | 3,4,5 | 1 |
| Kings Hill | 10C01 | 7500 | 34 | 13N | 8E | 1934 | 3,4,5,$5\frac{1}{2}$,6 | 1,3 |
| Rocky Boy | 9A01 | 5200 | 15 | 28N | 16E | 1941 | 3,4, | 7 |
| Stemple Pass | 12C01 | 6600 | 16 | 13N | 7W | 1934 | 3,4,5 | 3 |
| Ten Mile Lower | 12C02 | 6600 | 12 | 8N | 6W | 1935 | 1,2,3,4,5 | 3 |
| Ten Mile Middle | 12C03 | 6800 | 13 | 8N | 6W | 1934 | 1,2,3,4,5 | 3 |
| Ten Mile Upper | 12C04 | 8000 | 19 | 8N | 5W | 1935 | 1,2,3,4,5 | 3 |
| **SUN-TETON-MARIAS RIVERS** | | | | | | | | |
| Badger Pass | 13A15 | 6900 | 4 | 27N | 11W | 1964 | 3,4,5 | 2 |
| Cabin Creek | 12B06 | 5200 | 33 | 23N | 10W | 1949 | 3,4,5 | 2 |
| Five-Bull | 12B09 | 5700 | 25 | 20N | 10W | 1948 | 3,4,5 | 1 |
| Freight Creek | 12A01 | 6000 | 13 | 26N | 10W | 1948 | 3,4,5 | 1 |
| Goat Mountain | 12B07 | 7000 | 20 | 22N | 10W | 1934 | 3,4,5 | 3 |
| Wrong Creek | 12B04 | 5700 | 32 | 25N | 10W | 1949 | 3,4,5 | 2 |
| Wrong Ridge | 12B03 | 6800 | 17 | 25N | 10W | 1949 | 3,4,5 | 2 |
| **JUDITH RIVER** | | | | | | | | |
| Avalanche | 9C02 | 7100 | 24 | 12N | 17E | 1966 | 3,4,5 | 1 |
| Crystal Lake | 9C01 | 6100 | 19 | 12N | 18E | 1941 | 3,4,5 | 1 |
| Rock Creek | 9C03 | 5600 | 8 | 12N | 18E | 1966 | 3,4,5 | 1 |
| Spur Park | 10C06 | 8000 | 20 | 12N | 9E | 1963 | 1,2,3,4,5, 6 | 1 |
| **UPPER YELLOWSTONE RIVER** | | | | | | | | |
| Bald Ridge | 10C05 | 7500 | 11 | 4N | 10E | 1961 | 3,4,5 | 1 |
| Camp Senia | 9D01 | 7890 | 2 | 8S | 18E | 1937 | 3,4,5,$5\frac{1}{2}$,6 | 1 |
| Cooke Station | 9D07 | 8150 | 19 | 9S | 15E | 1966 | 3,4,5 | 2 |
| Crevice Mountain | 10D05 | 8400 | 22 | 9S | 9E | 1935 | 3,4 | 2 |
| Fisher Creek | 9D06 | 9100 | 11 | 9S | 14E | 1966 | 1,2,3,4,5,$5\frac{1}{2}$,6 | 1,2 |
| Grizzly Peak | 9D05 | 8400 | 26 | 7S | 9E | 1961 | 1,2,3,4,5 | 1,2 |
| Independence | 10D06 | 8000 | 22 | 7S | 12E | 1940 | 3,4,5 | 1 |
| Monument Peak | 10D12 | 9000 | 22 | 7S | 12E | 1961 | 3,4,5 | 1 |
| Northeast Entrance | 10D07 | 7400 | 33 | 9S | 14E | 1937 | 1,2,3,4,5,$5\frac{1}{2}$,6 | 1,6 |
| Porcupine R.S. | 10C03 | 6500 | 10 | 4N | 10E | 1938 | 3,4,5 | 1 |
| Sacajawea | 10D10 | 6550 | 36 | 2N | 6E | 1960 | 3,4,5 | 1 |
| South Fork Shields | 10C08 | 8100 | 13 | 4N | 10E | 1965 | 3,4,5 | 1 |
| Timberline Creek | 9B04 | 8850 | 13 | 8S | 18E | 1965 | 3,4,5 | 1 |
| West Rosebud | 9D02 | 7500 | 9 | 7S | 16E | 1960 | 3,4 | 4 |
| White Mill | 9D08 | 8700 | 18 | 9S | 15E | 1967 | 3,4,5 | 2 |

## SOIL MOISTURE STATIONS

### COLUMBIA RIVER BASIN

| Drainage Basin & Course Name | Number | Elev. | Sec. | Twp. | Range | Record Began | Measuring Dates 1/ | Meas. By 2/ |
|---|---|---|---|---|---|---|---|---|
| **KOOTENAI RIVER** | | | | | | | | |
| Baree Trail | 15B15M | 3800 | 5 | 25N | 30W | 1964 | Monthly | 2 |
| Murphy Lake R.S. | 14A10M | 3000 | 5 | 34N | 25W | 1964 | Monthly | 2 |
| Raven R.S. | 15A02M | 3050 | 2 | 26N | 29W | 1964 | Monthly | 2 |
| **FLATHEAD RIVER** | | | | | | | | |
| Desert Mountain | 13A02M | 5600 | 24 | 31N | 19W | 1956 | Monthly | 1 |
| Marias Pass | 13A05M | 5250 | 34 | 30N | 14W | 1950 | Monthly | 1 |
| **CLARK FORK RIVER** | | | | | | | | |
| Black Pine | 13C13M | 7100 | 26 | 8N | 15W | 1965 | Monthly | 1 |
| Lubrecht Forest | 13C14M | 4100 | 11 | 13N | 15W | 1961 | Monthly | 8 |
| Seeley Lake | 13B19M | 4030 | 21 | 17N | 15W | 1963 | Monthly | 2 |
| Skalkaho Summit | 13C03M | 7260 | 30 | 6N | 17W | 1964 | Monthly | 1 |
| **BITTERROOT RIVER** | | | | | | | | |
| Gibbons Pass | 13D18M | 7100 | 4 | 2S | 19W | 1962 | Monthly | 1 |
| Lolo Pass | 14C05M | 5250 | 11 | 10N | 24W | 1963 | Monthly | 1 |

### MISSOURI RIVER BASIN

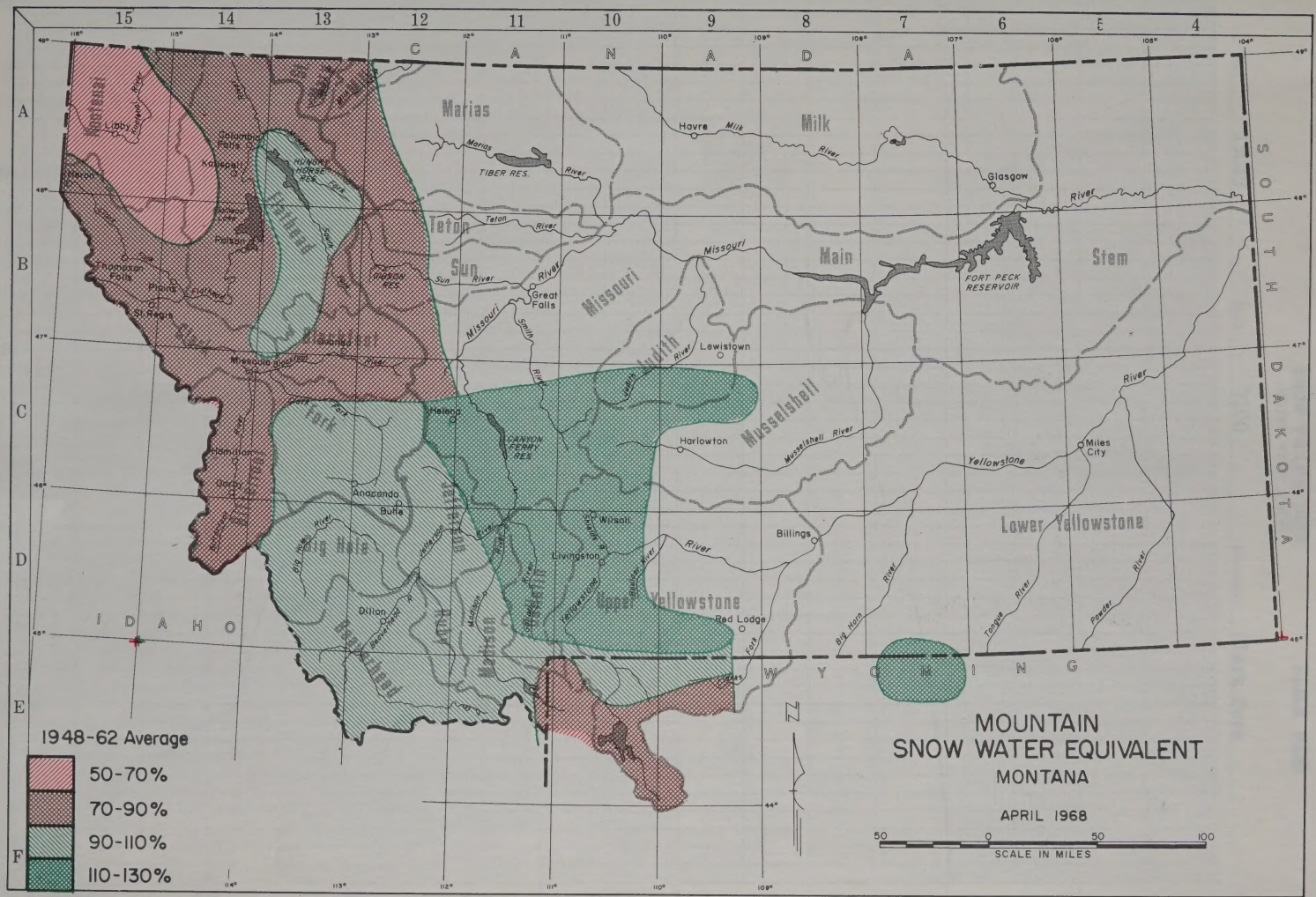
| Drainage Basin & Course Name | Number | Elev. | Sec. | Twp. | Range | Record Began | Measuring Dates 1/ | Meas. By 2/ |
|---|---|---|---|---|---|---|---|---|
| **BEAVERHEAD RIVER** | | | | | | | | |
| Lakeview | 11E13M | 6700 | 23 | 14S | 2W | 1962 | Monthly | 10 |
| **MADISON RIVER** | | | | | | | | |
| Red Bluff | 11D04M | 4800 | 7 | 3S | 1E | 1961 | Monthly | 7 |
| West Yellowstone | 11E07M | 6700 | 34 | 13S | 5W | 1966 | Monthly | 6 |
| **GALLATIN RIVER** | | | | | | | | |
| Bridger Bowl | 10D15M | 7250 | 25 | 1N | 6E | 1965 | Monthly | 1 |
| College Site | 11D02M | 4856 | 18 | 2S | 5E | 1956 | Monthly | 1 |
| Lick Creek | 10D13M | 6860 | 10 | 4S | 6E | 1965 | Monthly | 1 |
| Twenty-One Mile | 11E06M | 7150 | 1 | 11S | 5E | 1963 | Monthly | 6 |
| **MISSOURI RIVER MAIN STEM** | | | | | | | | |
| Kings Hill | 10C01M | 7420 | 34 | 13N | 8E | 1963 | Monthly | 1 |
| Stemple Pass | 12C08M | 6350 | 16 | 13N | 7W | 1963 | Monthly | 1 |
| **YELLOWSTONE RIVER** | | | | | | | | |
| Battle Ridge | 10D11M | 6020 | 32 | 2N | 7E | 1960 | Monthly | 1 |
| Northeast Entrance | 10D07M | 7350 | 33 | 9S | 14E | 1962 | Monthly | 6 |

### LEGEND

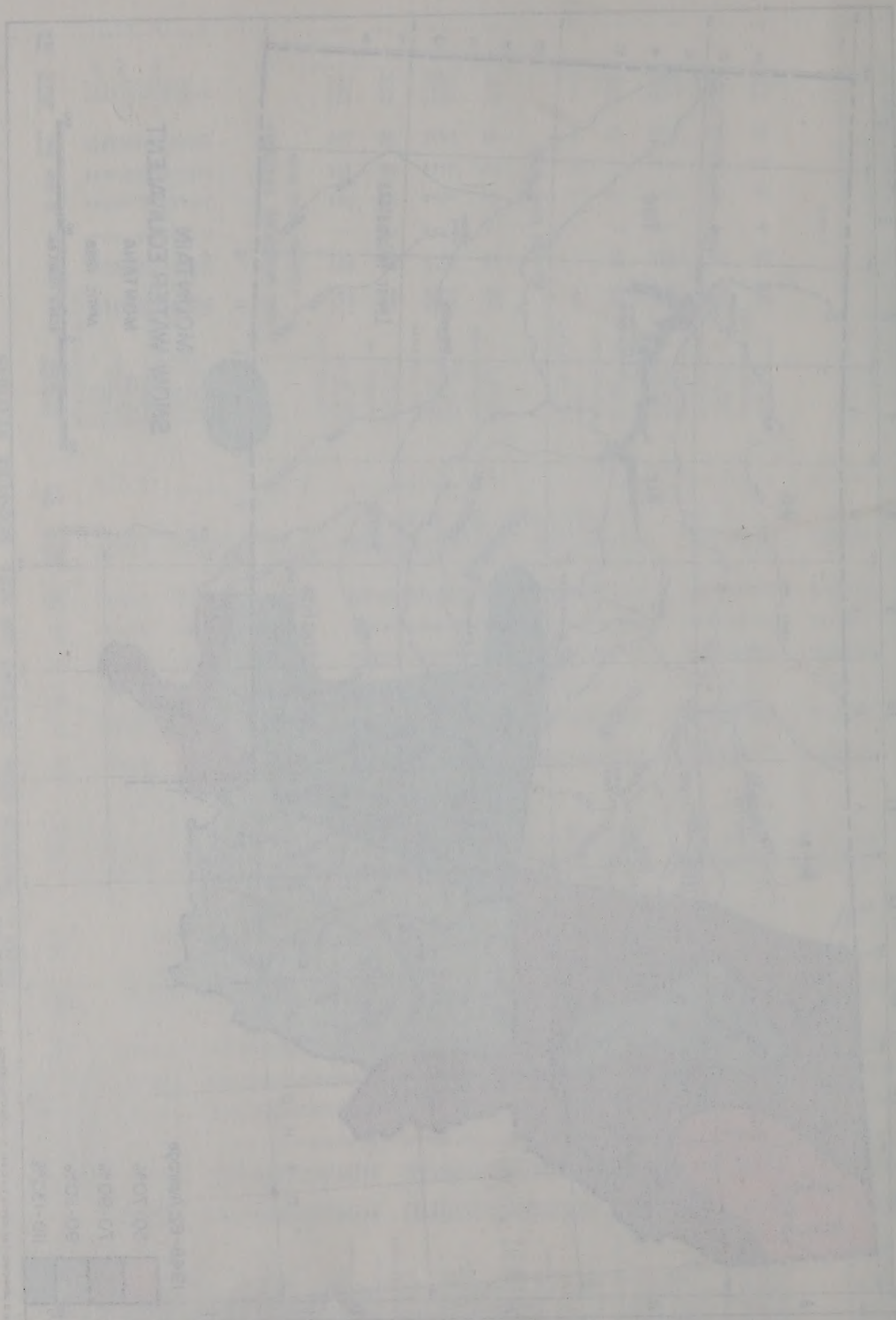
1/ Numerals 1,2,3,4,5,$5\frac{1}{2}$,6 refer to January 1, February 1, March 1, April 1, May 1, May 15 and June 1.

2/ Numerals refer to Agency that makes the snow survey as follows:

1. U. S. Soil Conservation Service
2. U. S. Forest Service
3. U. S. Geological Survey
4. Montana Power Company
5. U. S. Indian Service
6. U. S. National Park Service
7. MSU Agricultural Experiment Station
8. U. of M. School of Forestry
9. Department of Energy, Mines & Resources
10. U. S. Bureau of Sport Fisheries & Wildlife
11. Private Cooperator
12. Soil and Water Conservation District



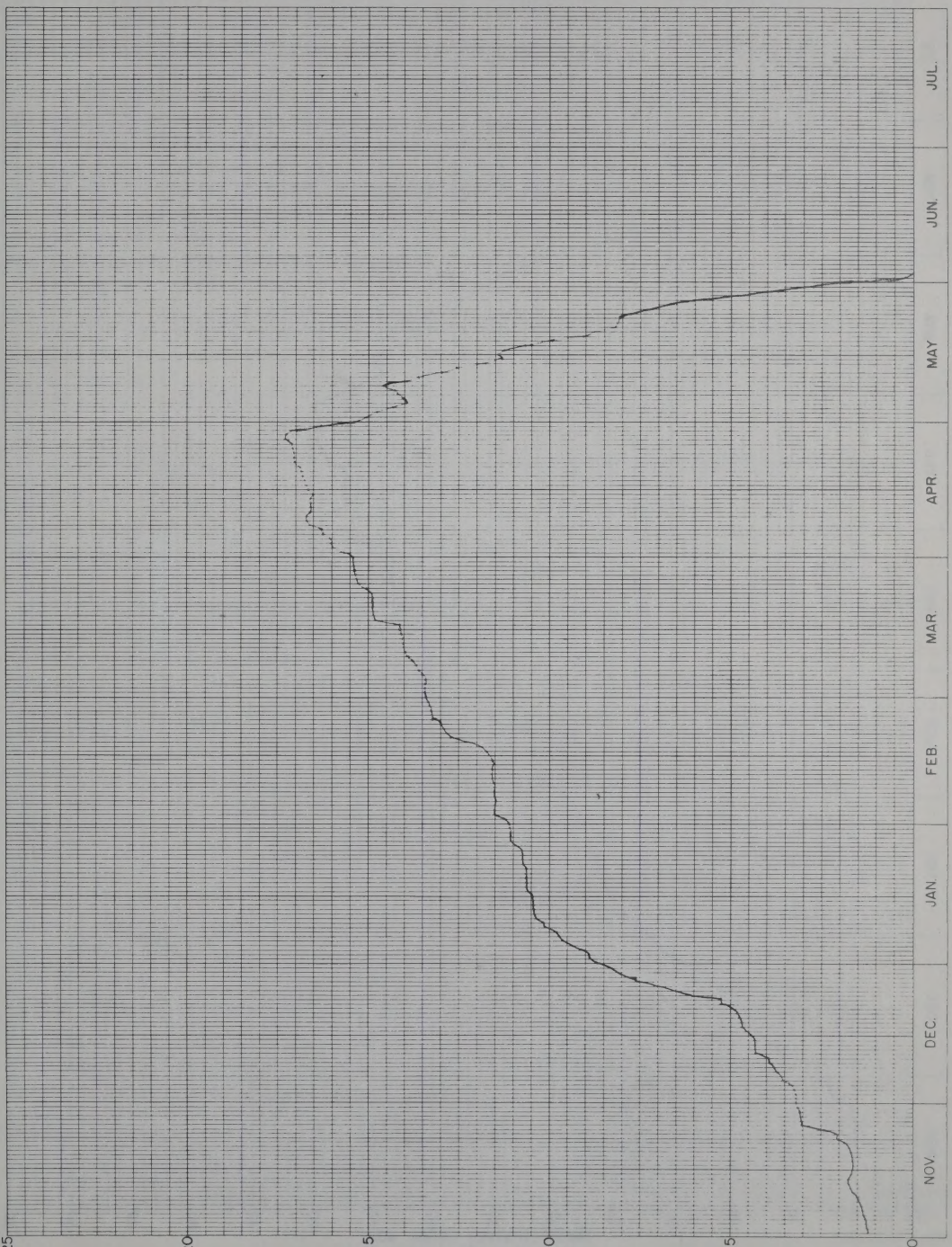

U. S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE USDA-SCS-PORTLAND, OREG. 1968



SNOW PILLOW DATA
WATER YEAR 1968

BLACK PINE

No. 13C13 Elev. 7100 Drainage: Clark Fork

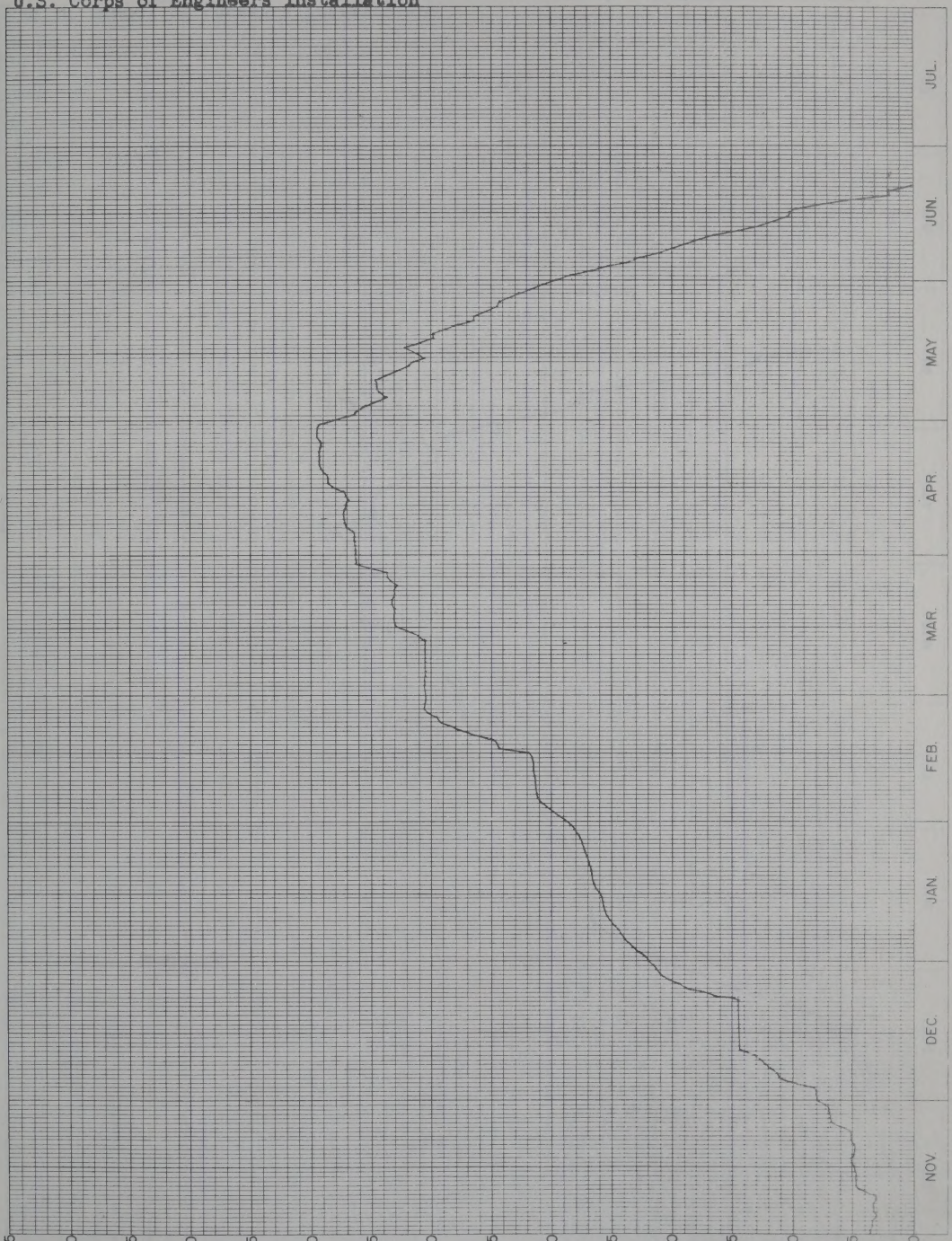


SNOW PILLOW DATA
WATER YEAR 1968

HOODOO BASIN

No. 15C10 Elev. 6000 Drainage: Clark Fork

U.S. Corps of Engineers installation



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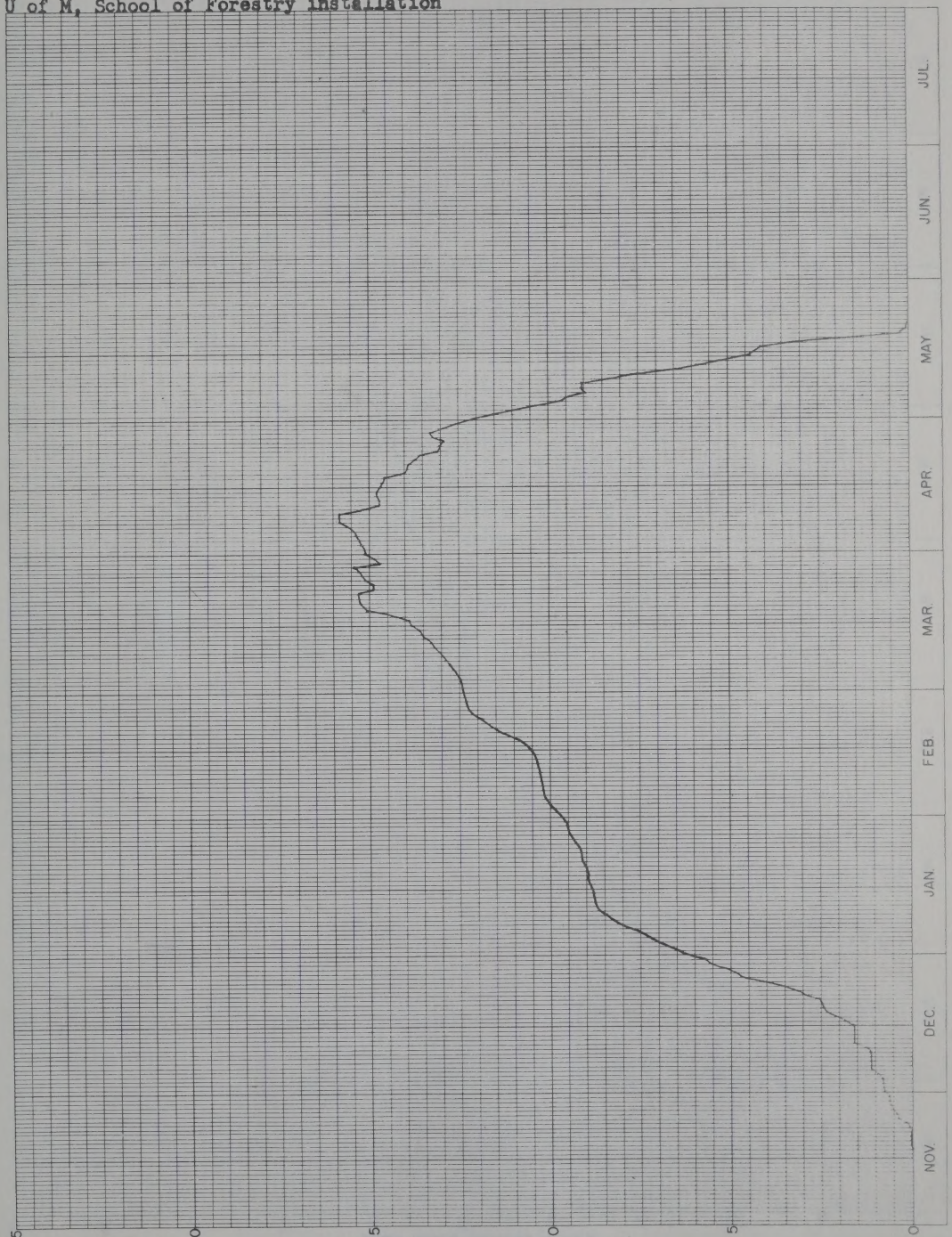
7-P-18764C-L

SNOW PILLOW DATA
WATER YEAR 1968

N. Fk. ELK CREEK

No. 13C31 Elev. Drainage: Blackfoot

U of M, School of Forestry installation



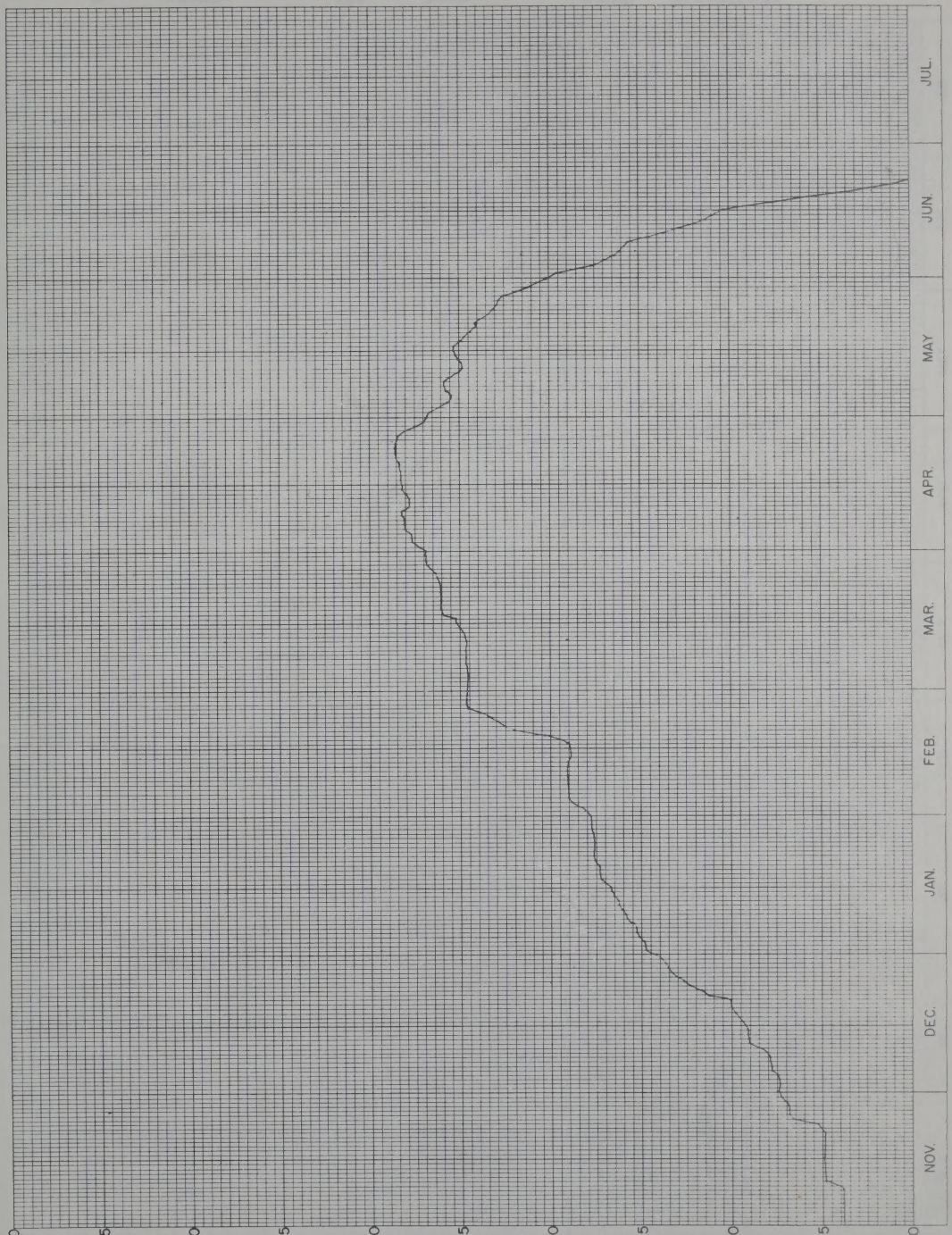



U.S. DEPARTMENT OF AGRICULTURE-SOIL CONSERVATION SERVICE

SNOW PILLOW DATA
WATER YEAR 1968

SADDLE MOUNTAIN

No. 13D22 Elev. 7900 Drainage: Bitterroot





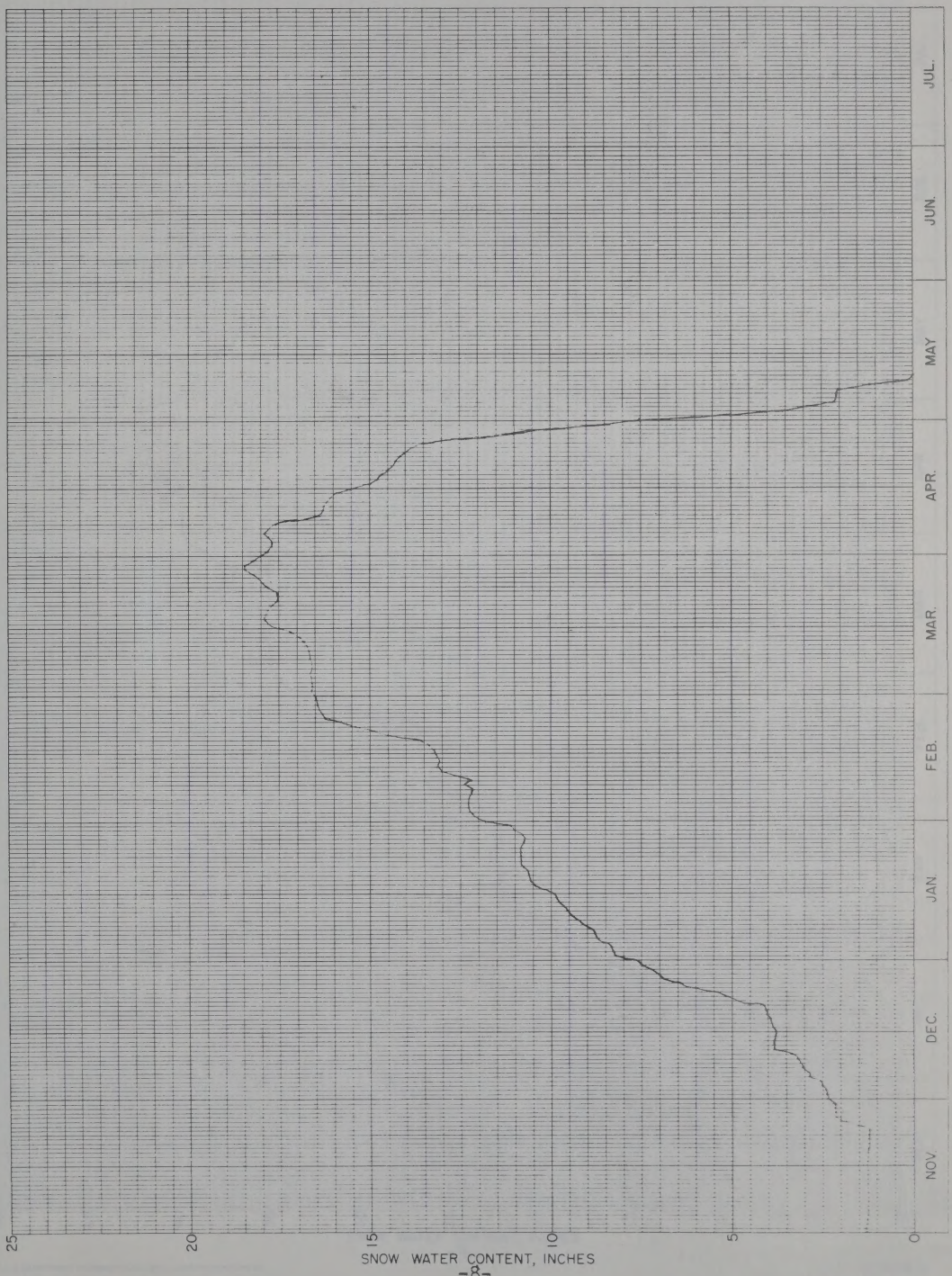

U. S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE

7-P-18764B-L

SNOW PILLOW DATA
WATER YEAR 1968

TWELVEMILE CREEK

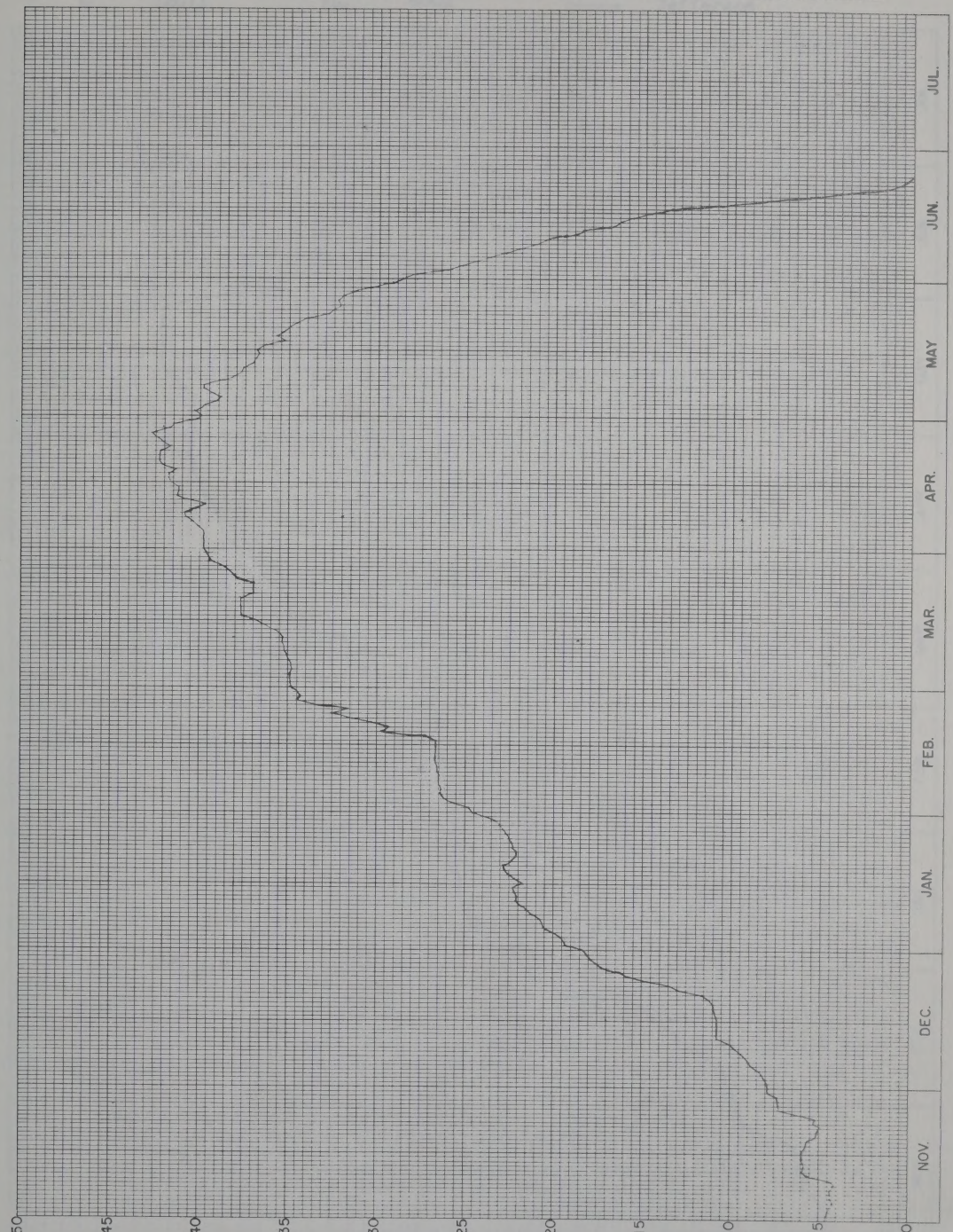
No. 14C13 Elev. 5600 Drainage: Bitterroot



SNOW PILLOW DATA
WATER YEAR 1968

TWIN LAKES

No. 14C12 Elev. 6400 Drainage: Bitterroot



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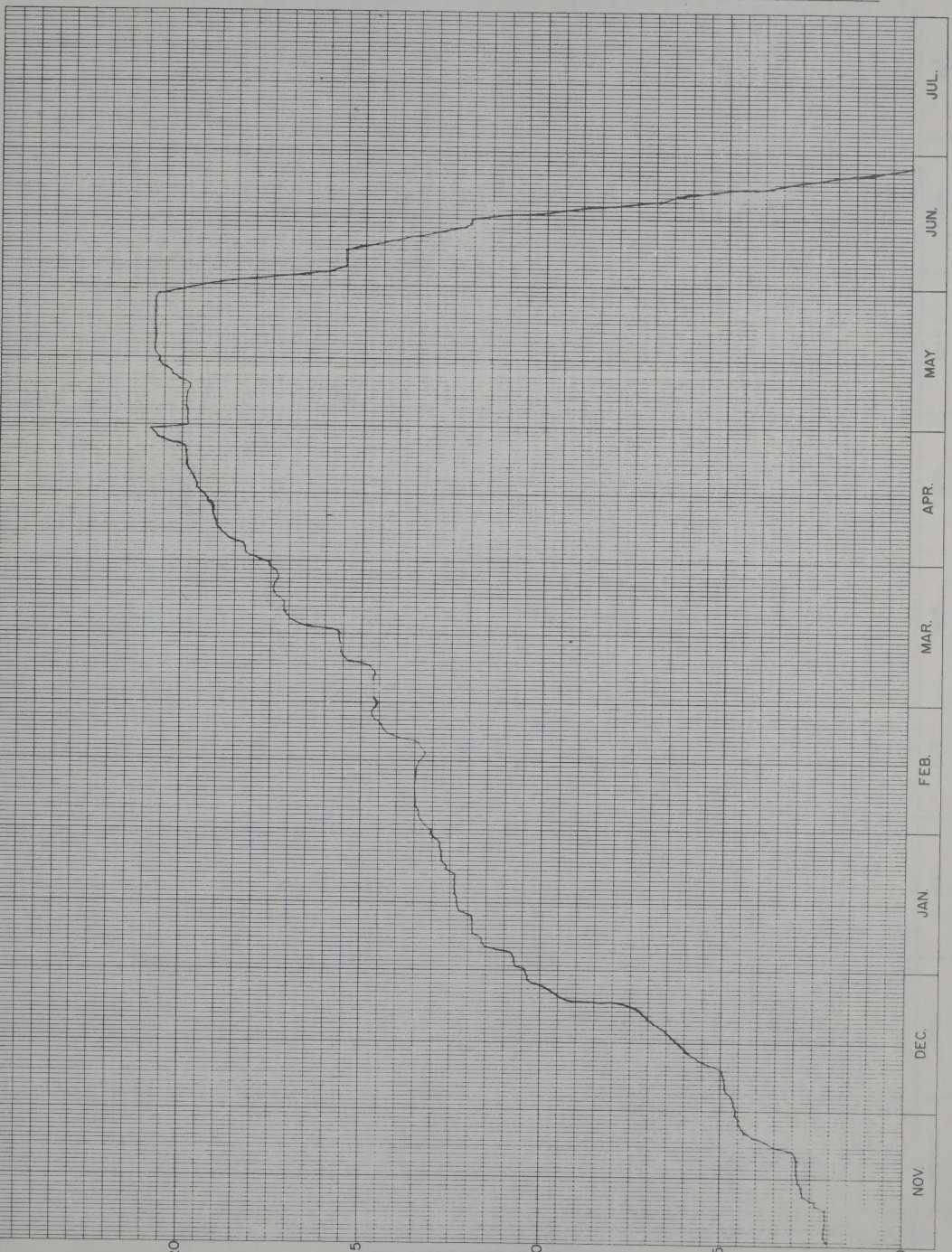
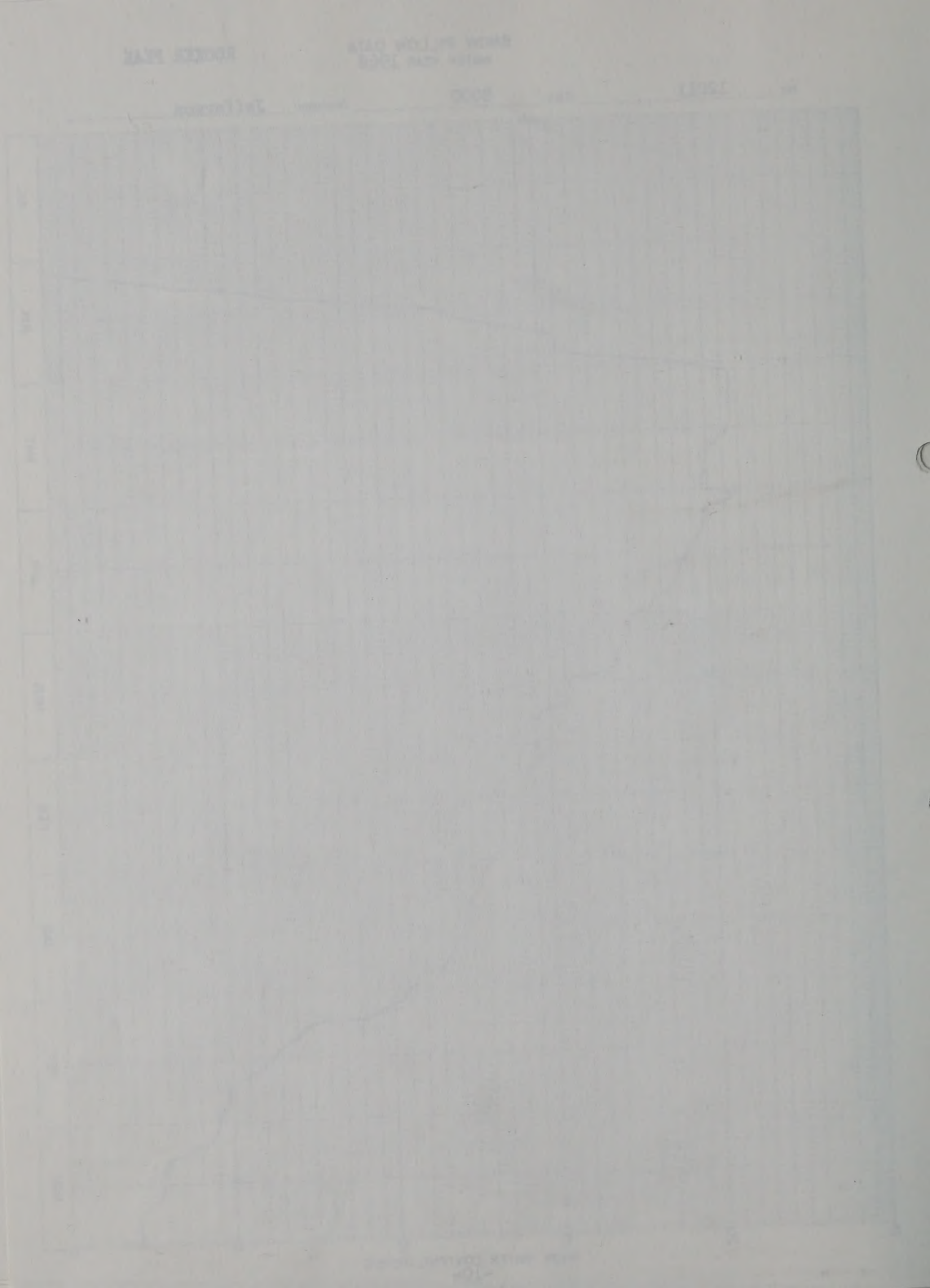
7-P-18764B-L

SNOW PILLOW DATA
WATER YEAR 1968

ROCKER PEAK

No. 12C11 Elev. 8000 Drainage: Jefferson



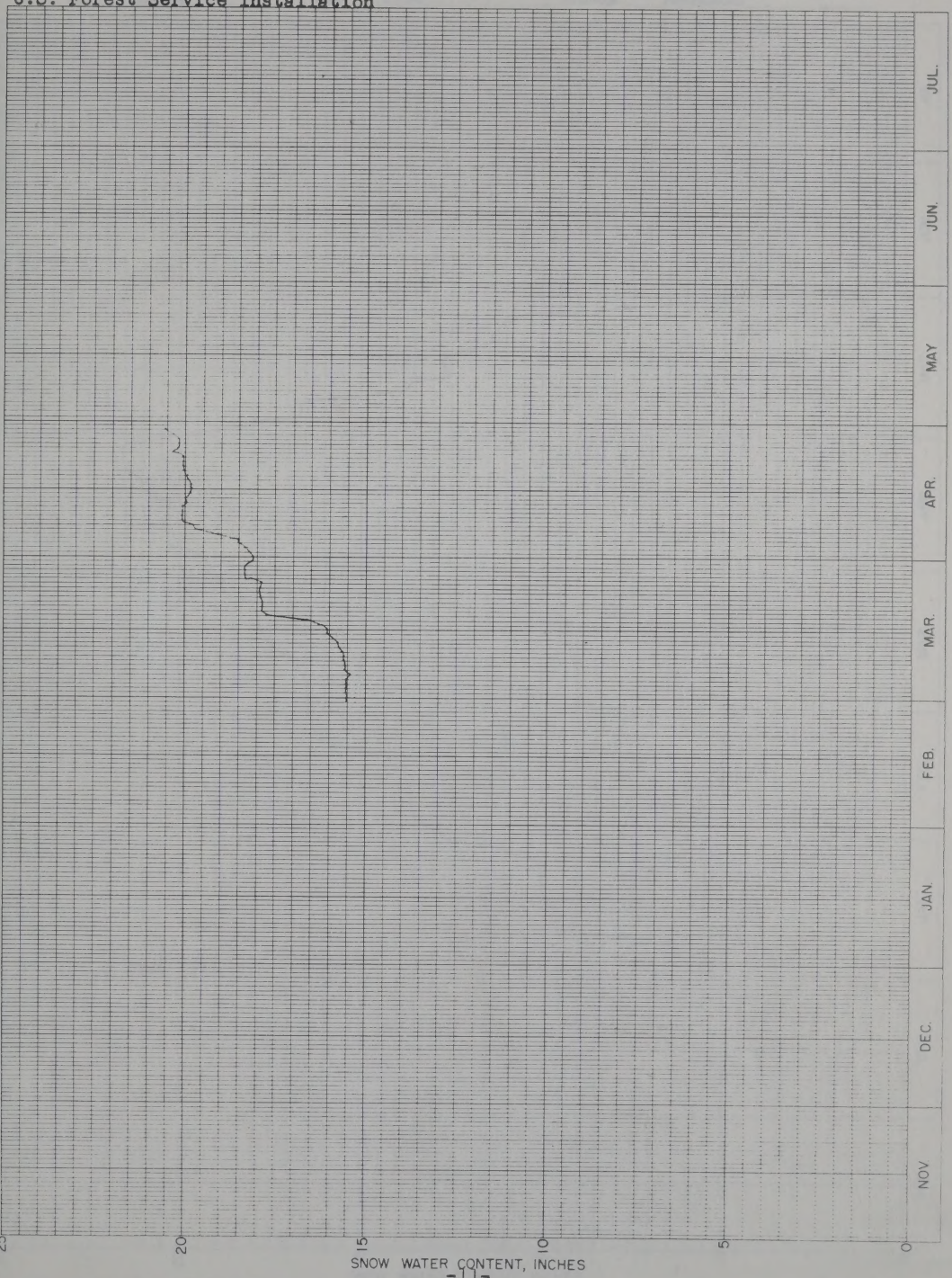


SNOW PILLOW DATA
WATER YEAR 1968

LION MOUNTAIN

No. 11E28 Elev. 8760 Drainage: Madison

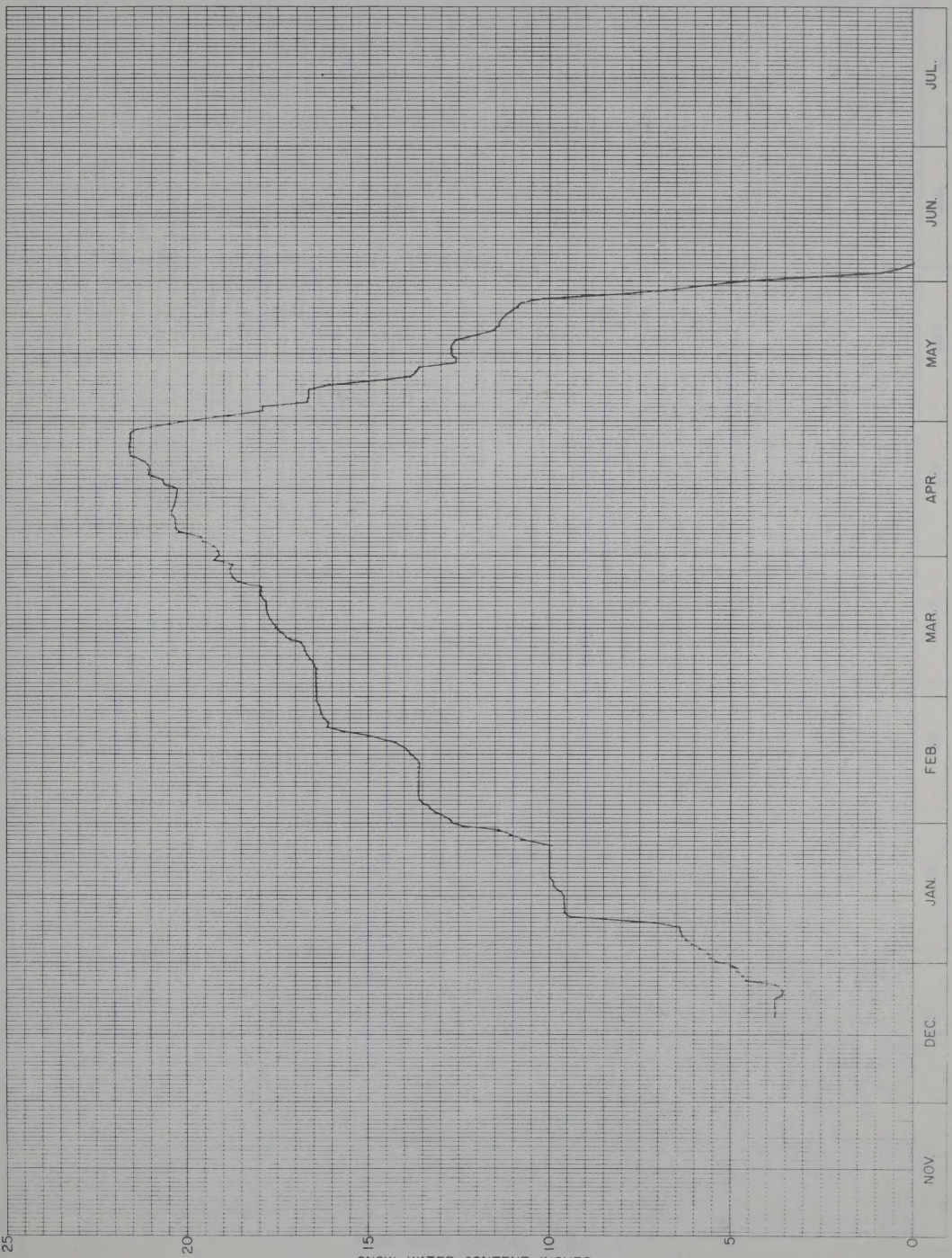
U.S. Forest Service installation



SNOW PILLOW DATA
WATER YEAR 1968

MADISON PLATEAU

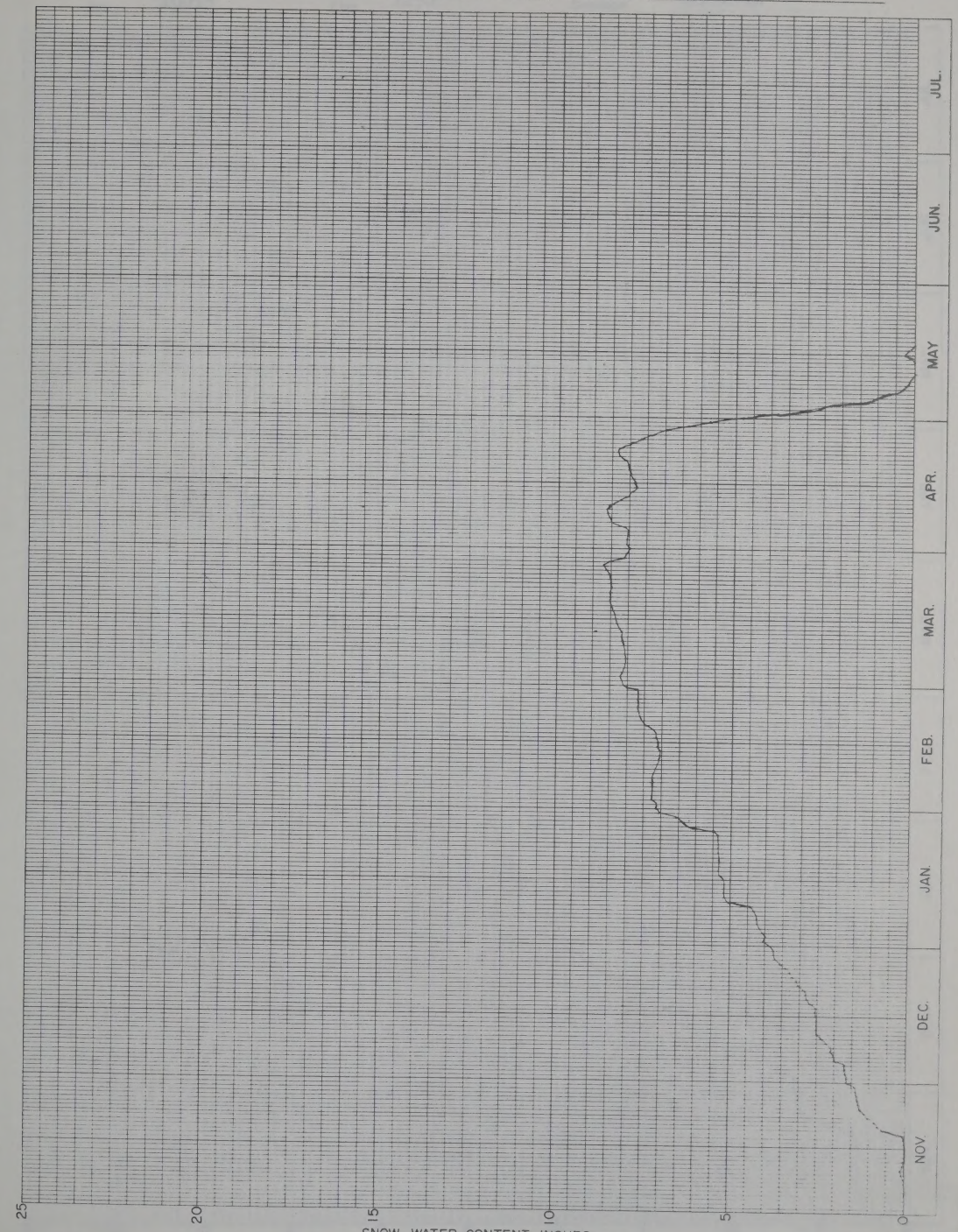
No. 11E31 Elev. 7750 Drainage: Madison

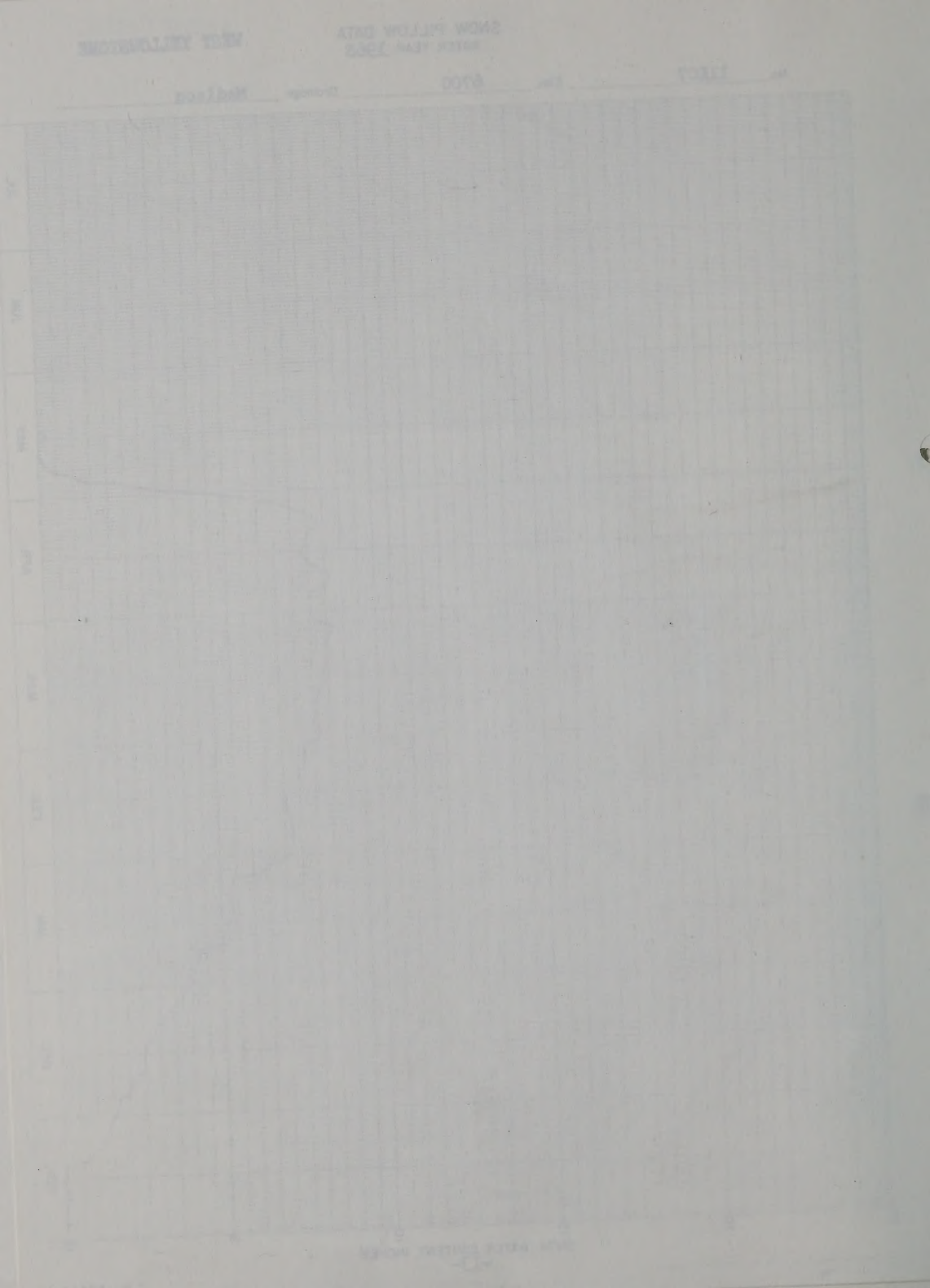


SNOW PILLOW DATA
WATER YEAR 1968

WEST YELLOWSTONE

No. 11E07 Elev. 6700 Drainage: Madison

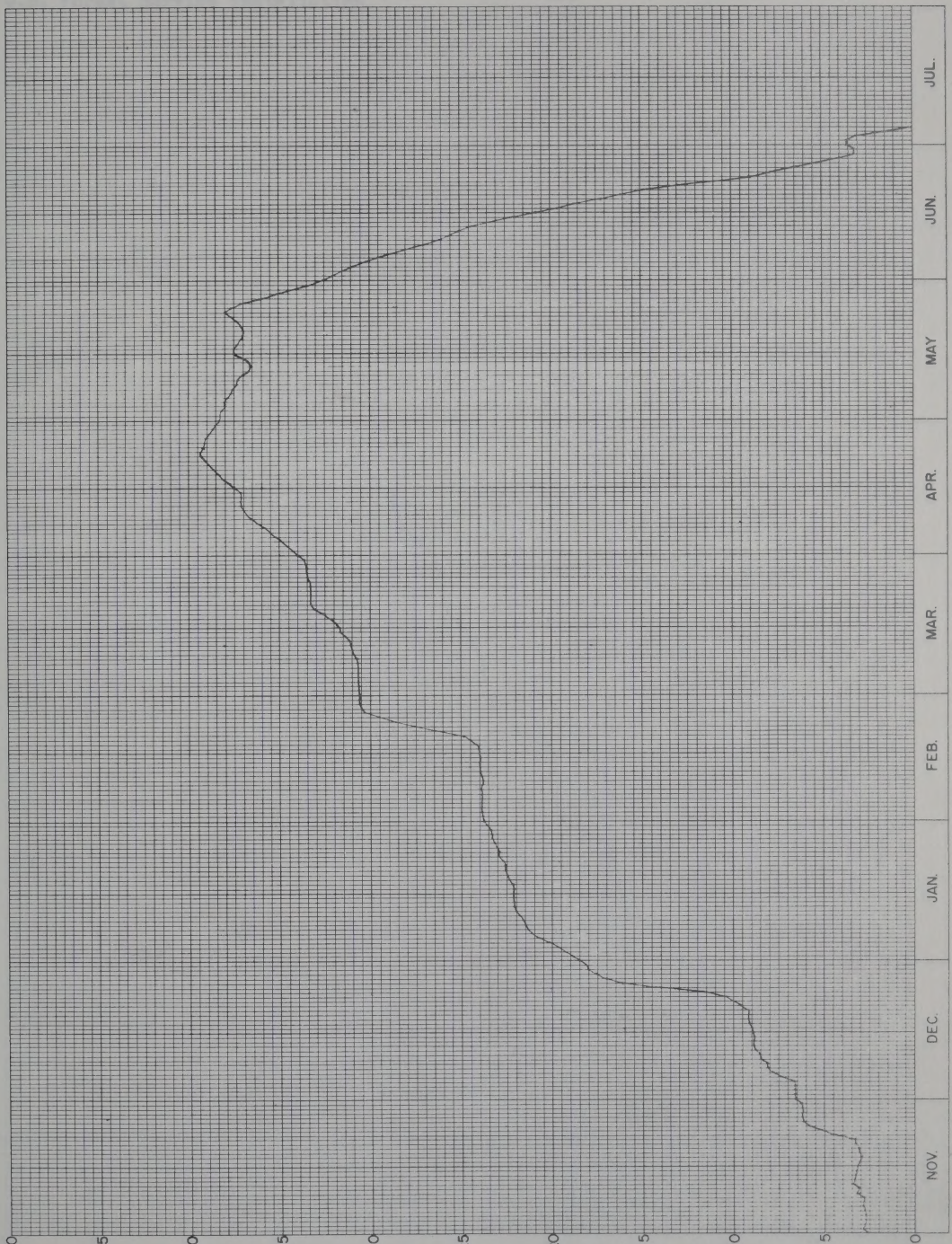




SNOW PILLOW DATA
WATER YEAR 1968

BRIDGER BOWL

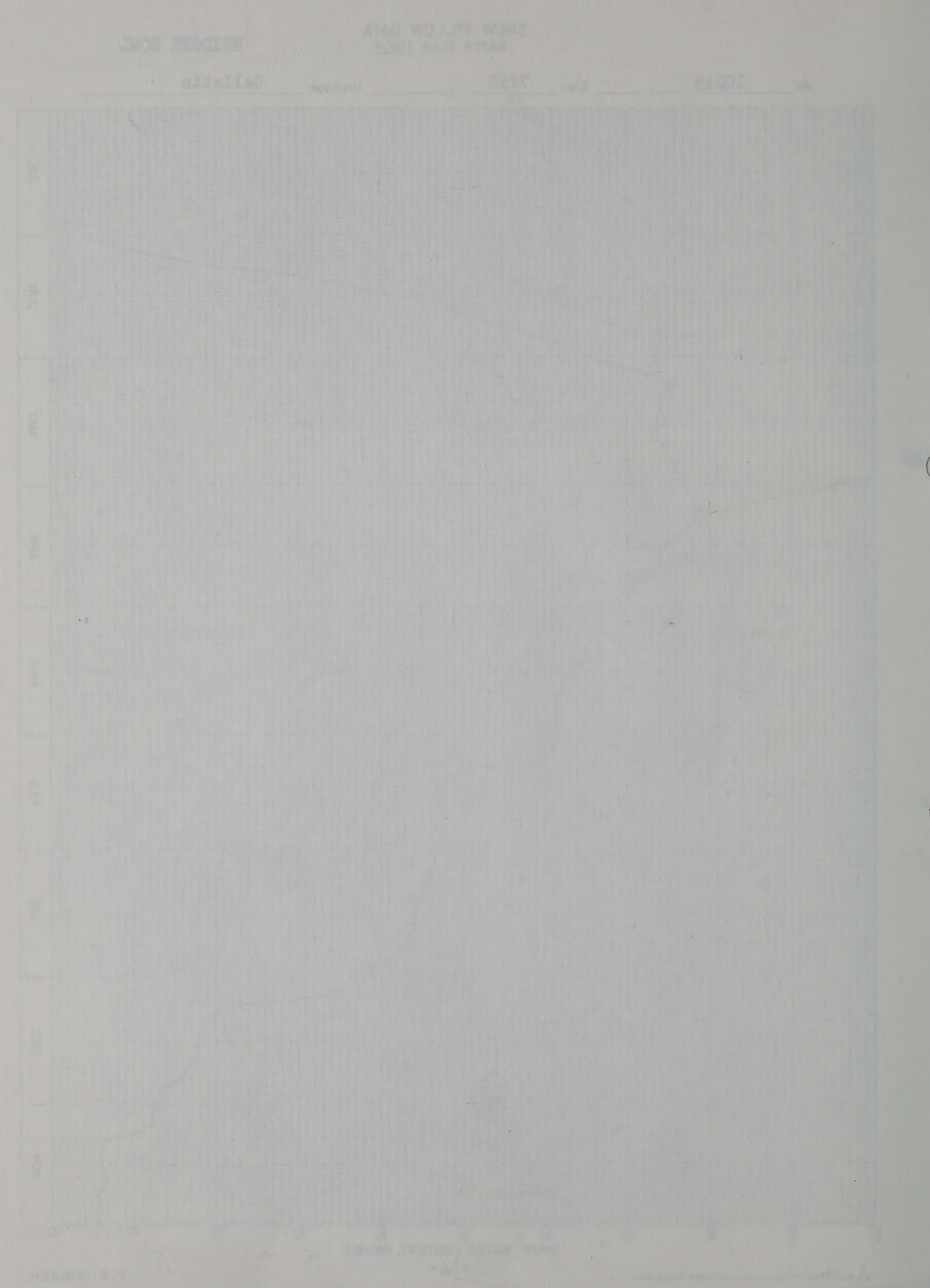
No. 10D15 Elev. 7250 Drainage: Gallatin






U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE

7-P-18764B-L

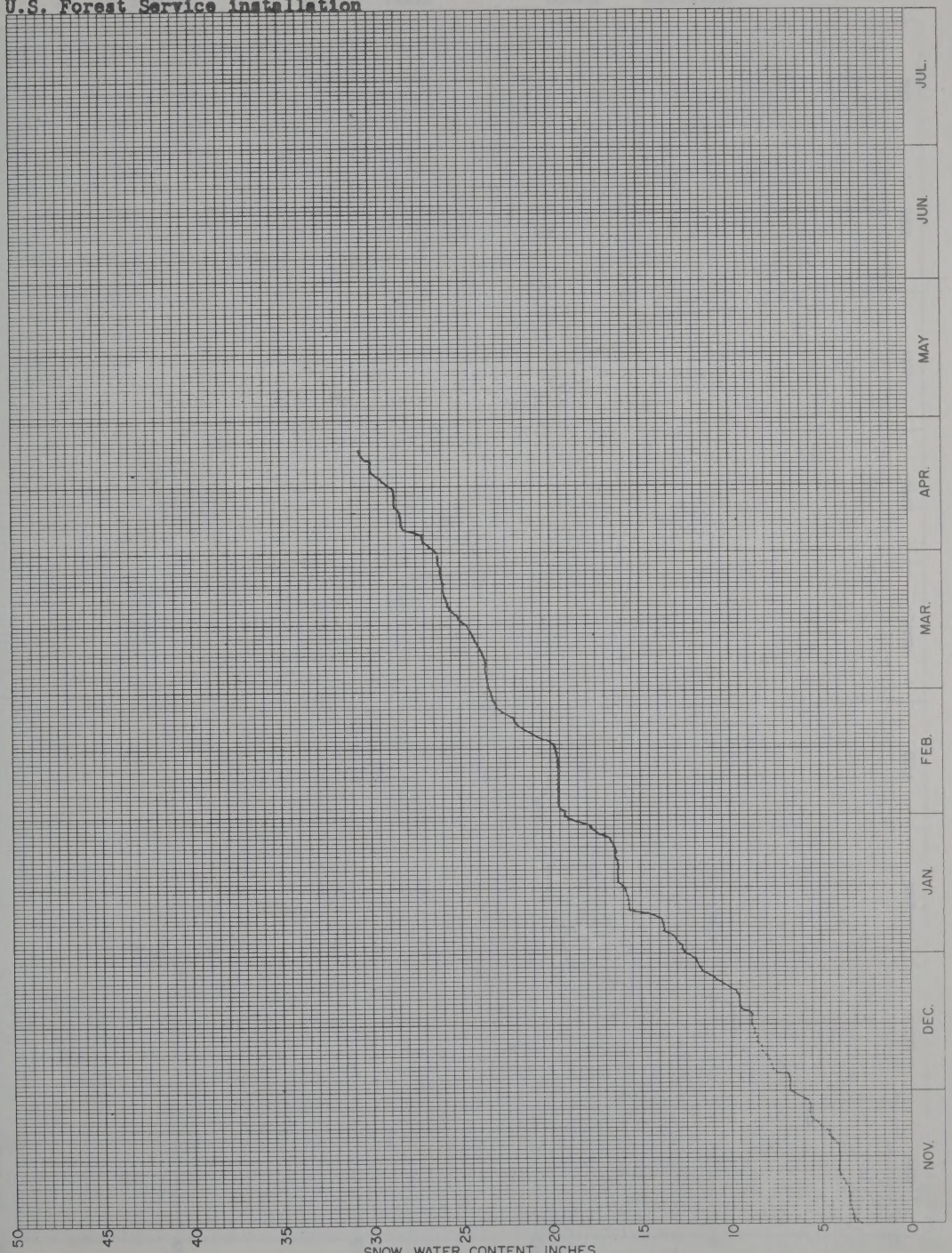


SNOW PILLOW DATA
WATER YEAR 68

CARROT BASIN

No. 11E29 Elev. 9000 Drainage: Gallatin

U.S. Forest Service Installation






U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE

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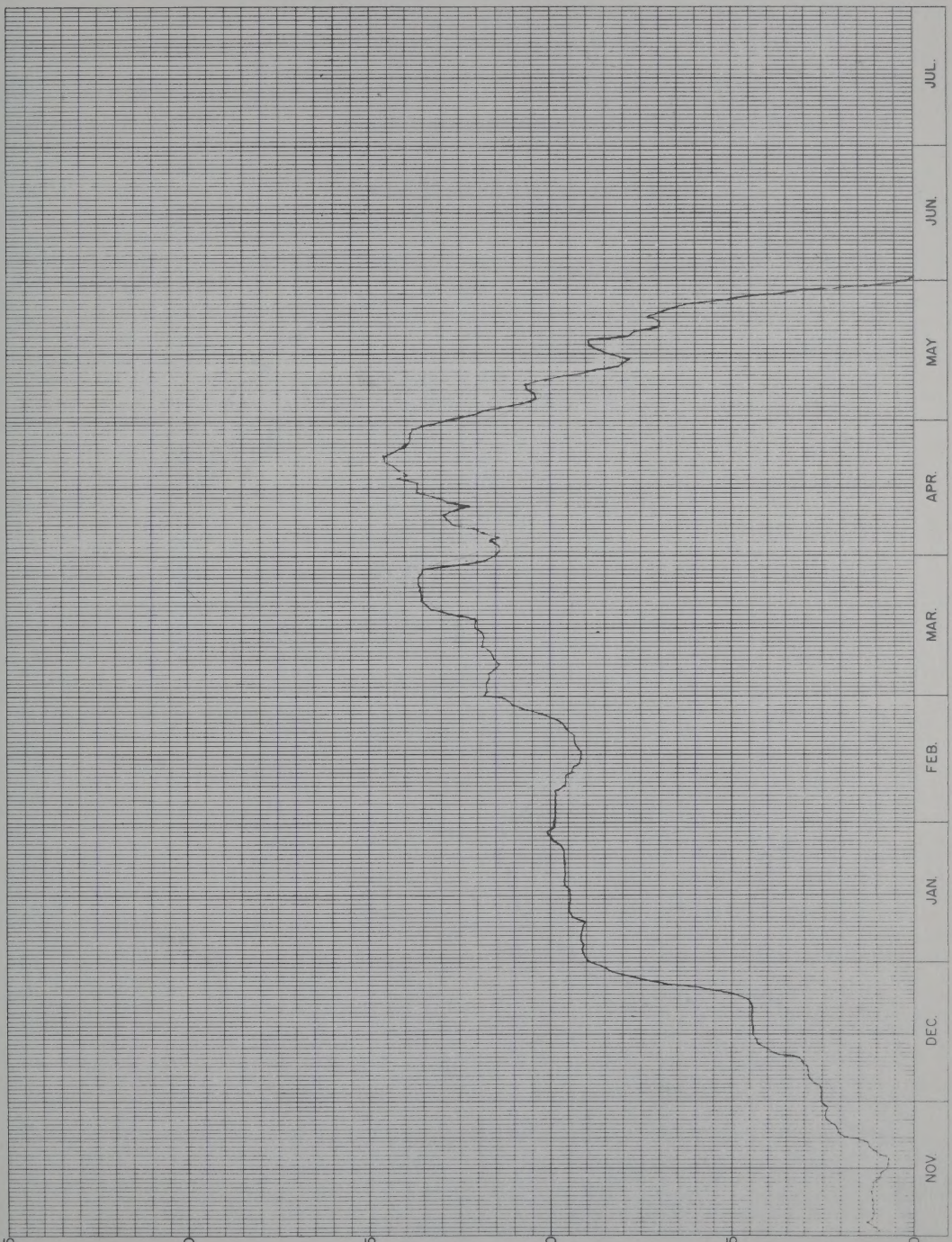
SNOW PILLOW DATA
WATER YEAR 1968

LICK CREEK

No. 10D13 Elev. 6860 Drainage: Gallatin



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SNOW PILLOW DATA
WATER YEAR 1968

MAYNARD CREEK

No. 10D18 Elev. 6210 Drainage: Gallatin

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

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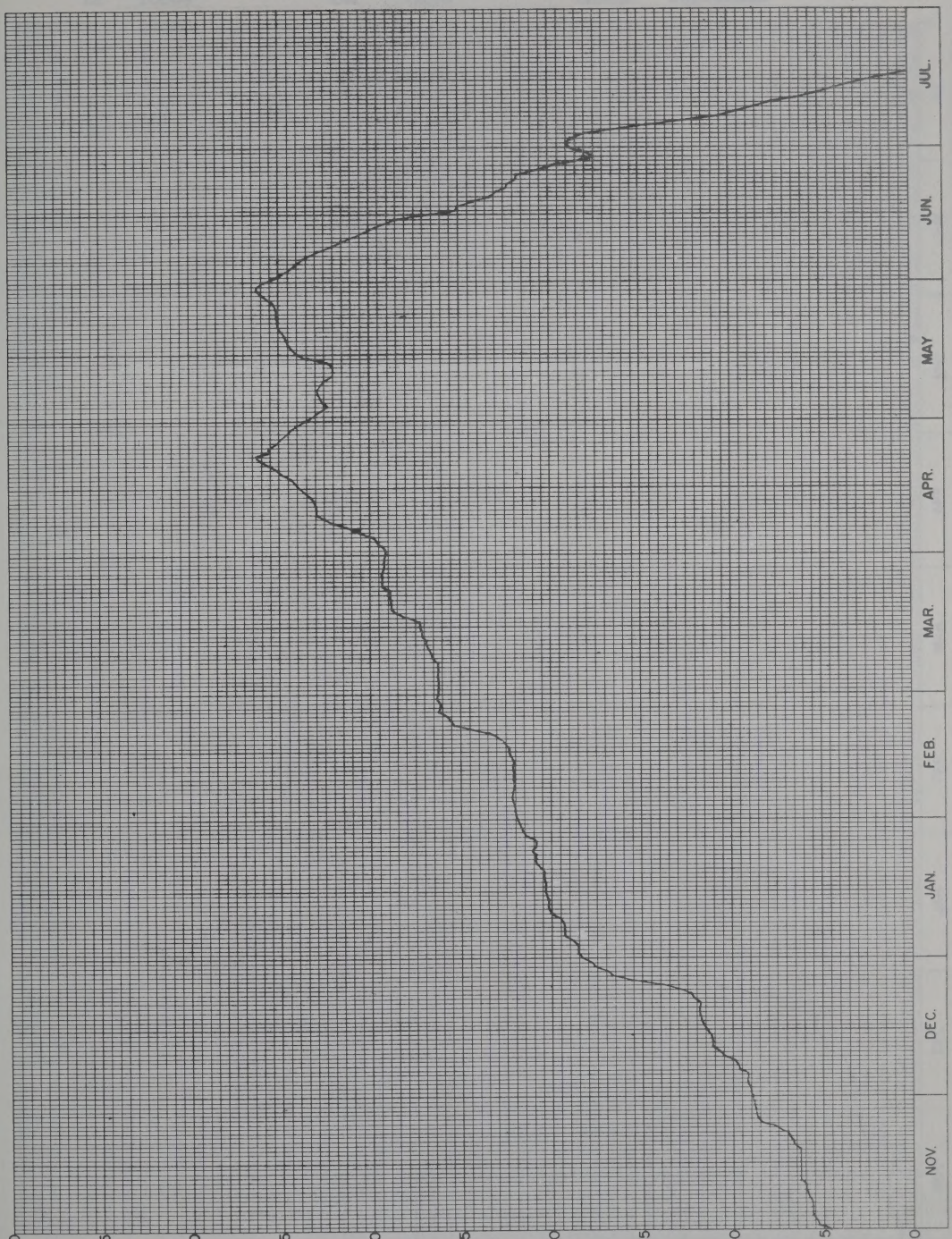
SNOW PILLOW DATA
WATER YEAR 1968

SHOWER FALLS

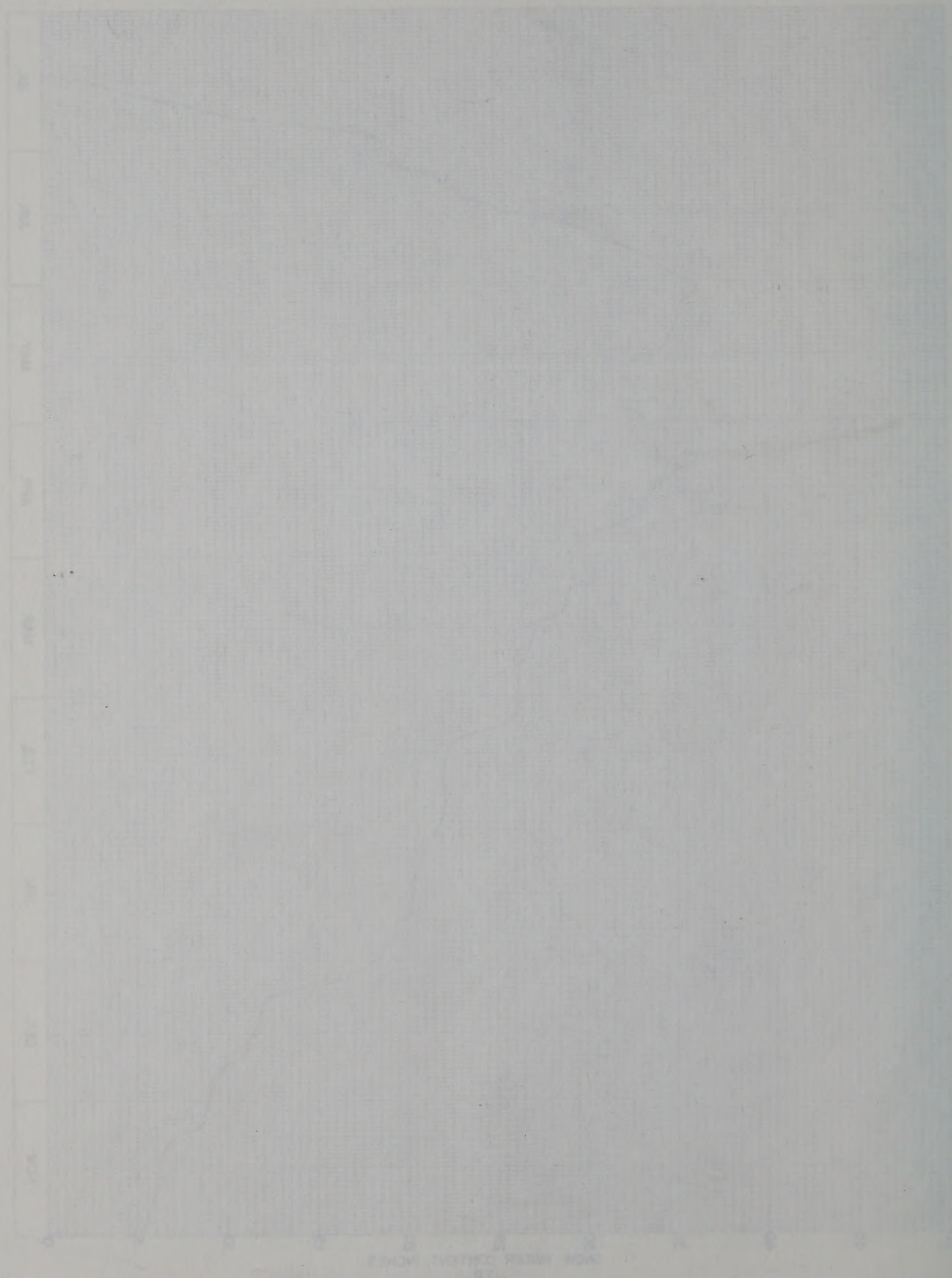
No. 10D16 Elev. 8100 Drainage: Gallatin






U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE

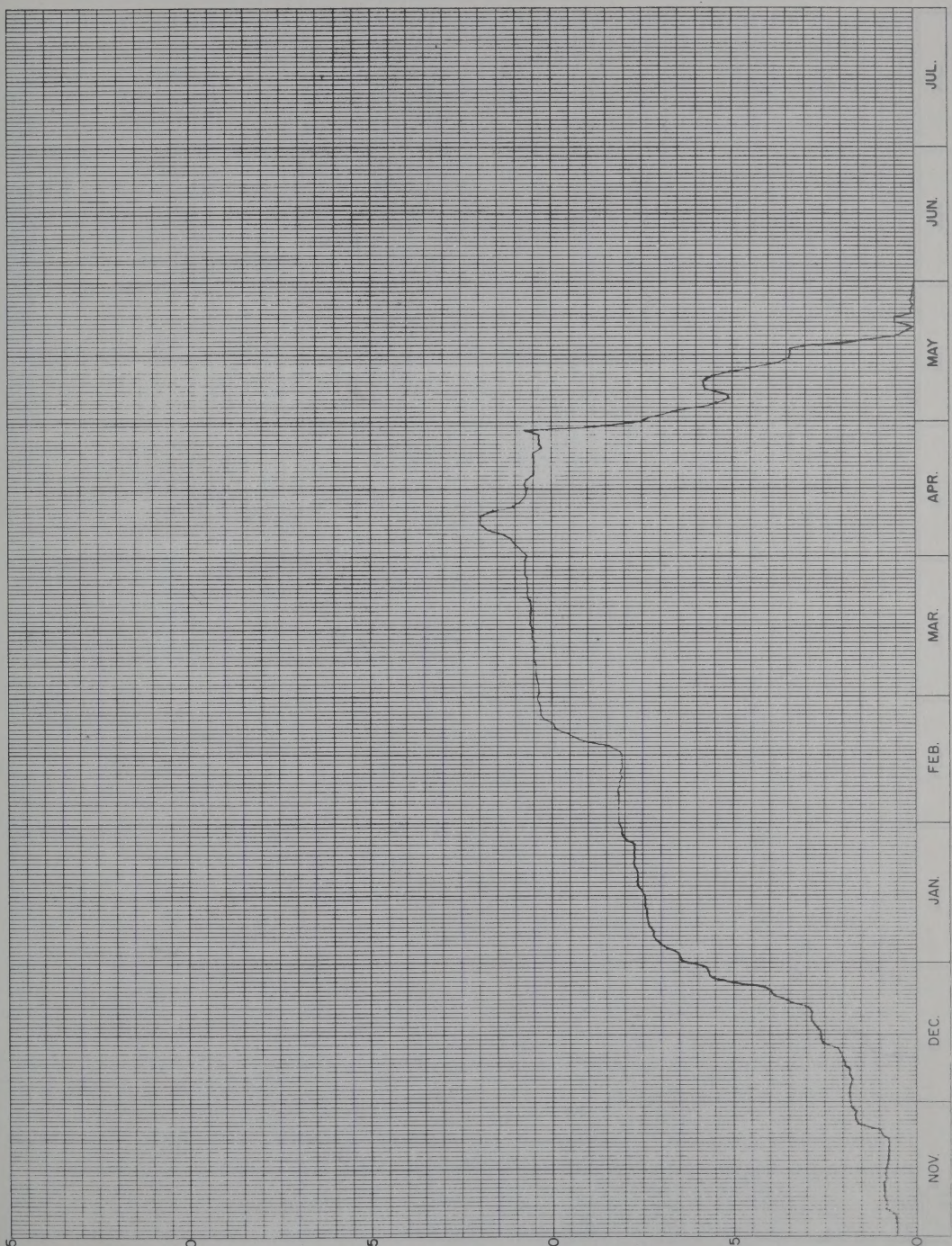
7-P-18764B-L



SNOW PILLOW DATA
WATER YEAR 1968

DEADMAN CREEK

No. 10009 Elev. 6450 Drainage: Jefferson






U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

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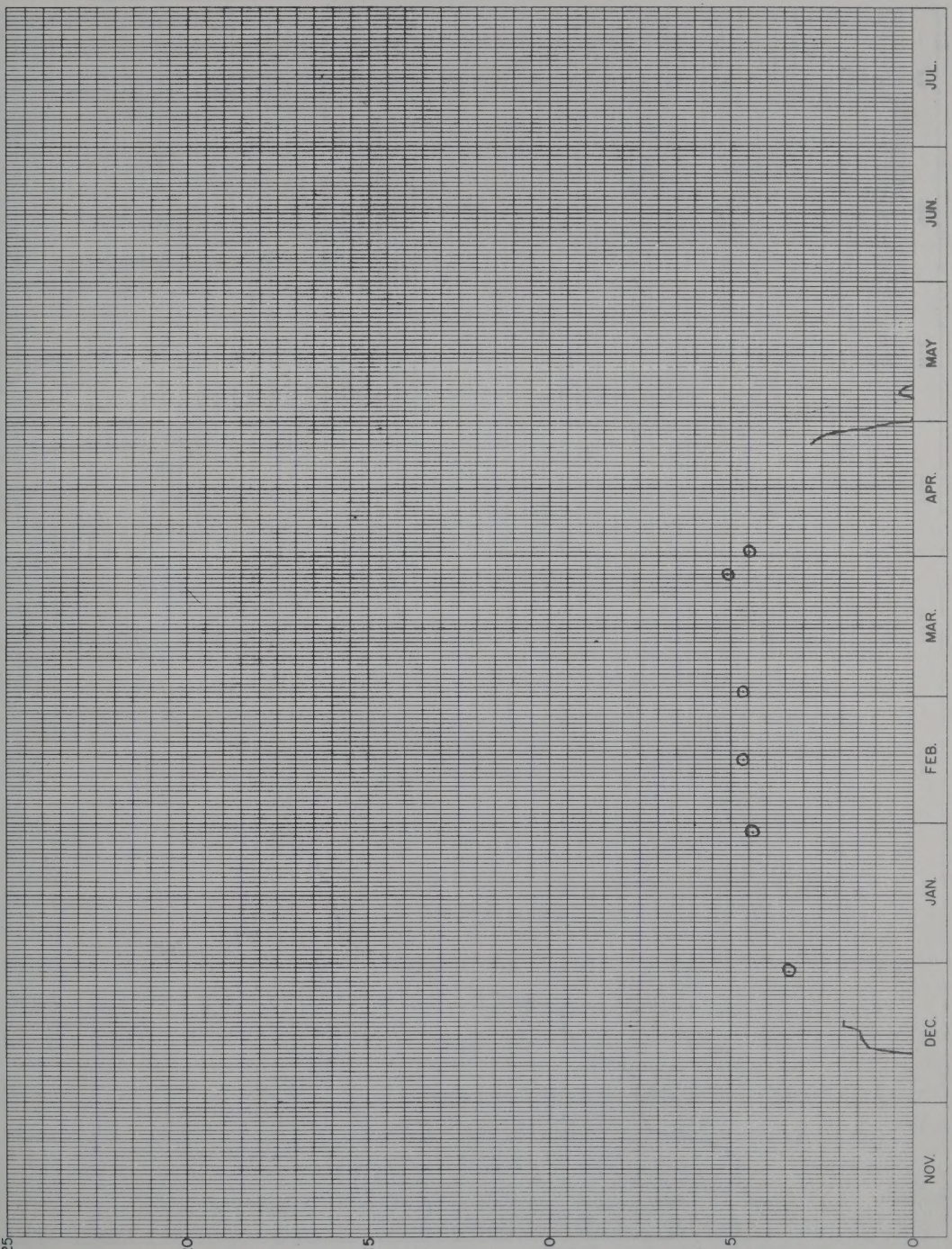
SNOW PILLOW DATA
WATER YEAR 1968

ROCKY BOY

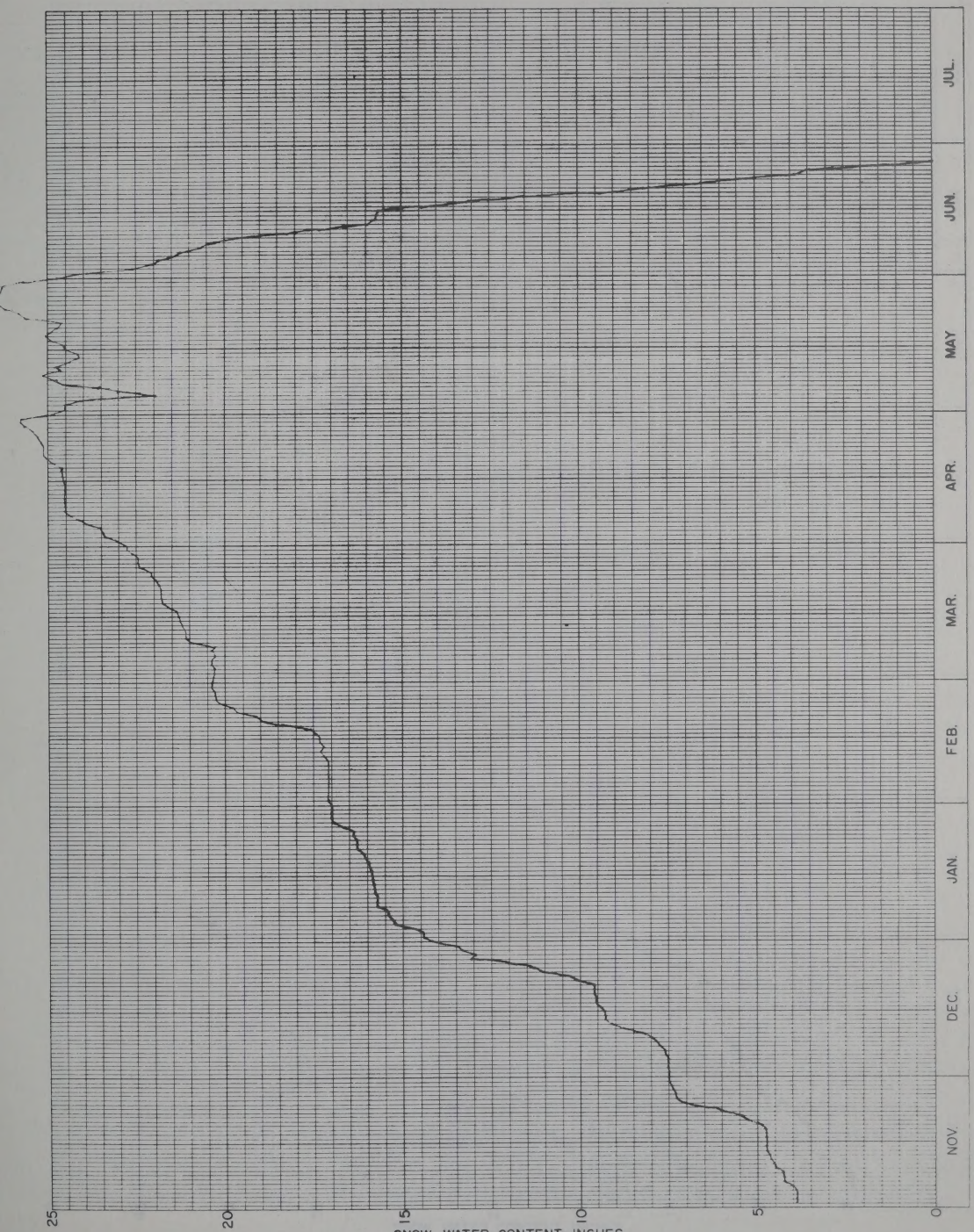
No. 9A01 Elev. 4700 Drainage: Milk



SNOW PILLOW DATA
WATER YEAR 1968

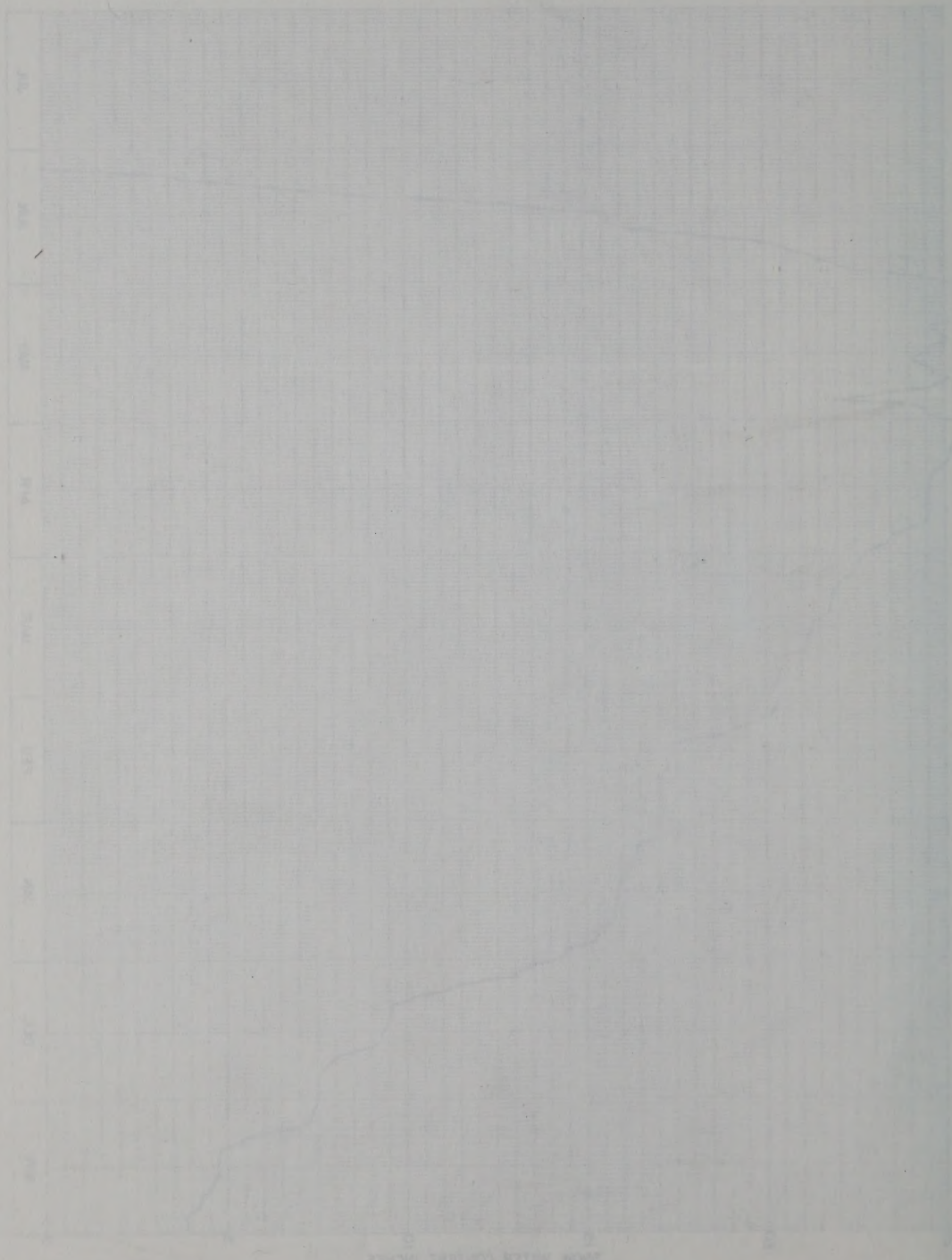
SPUR PARK

No. 10C06 Elev. 8000 Drainage: Judith





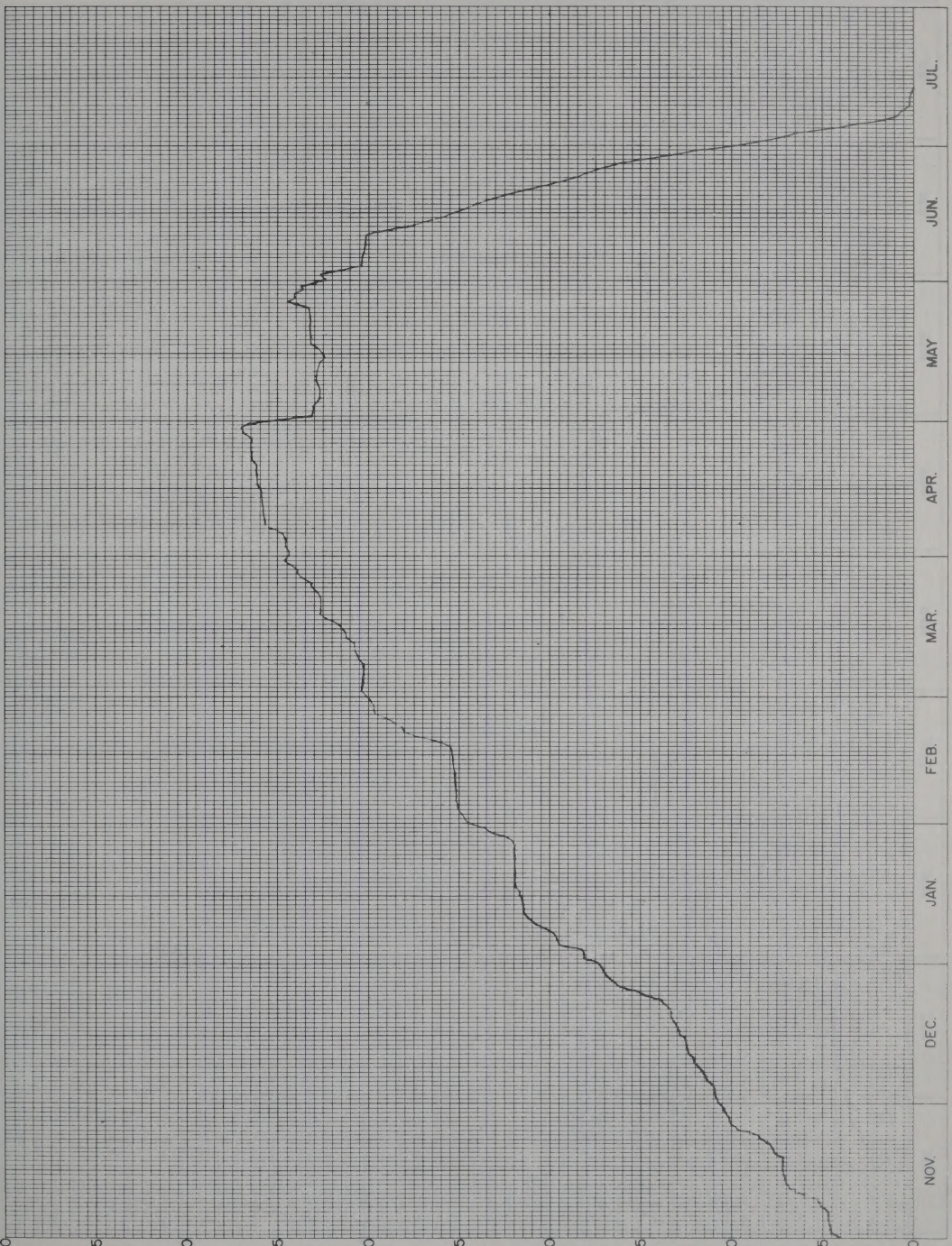

U.S. DEPARTMENT OF AGRICULTURE-SOIL CONSERVATION SERVICE



SNOW PILLOW DATA
WATER YEAR 1968

FISHER CREEK

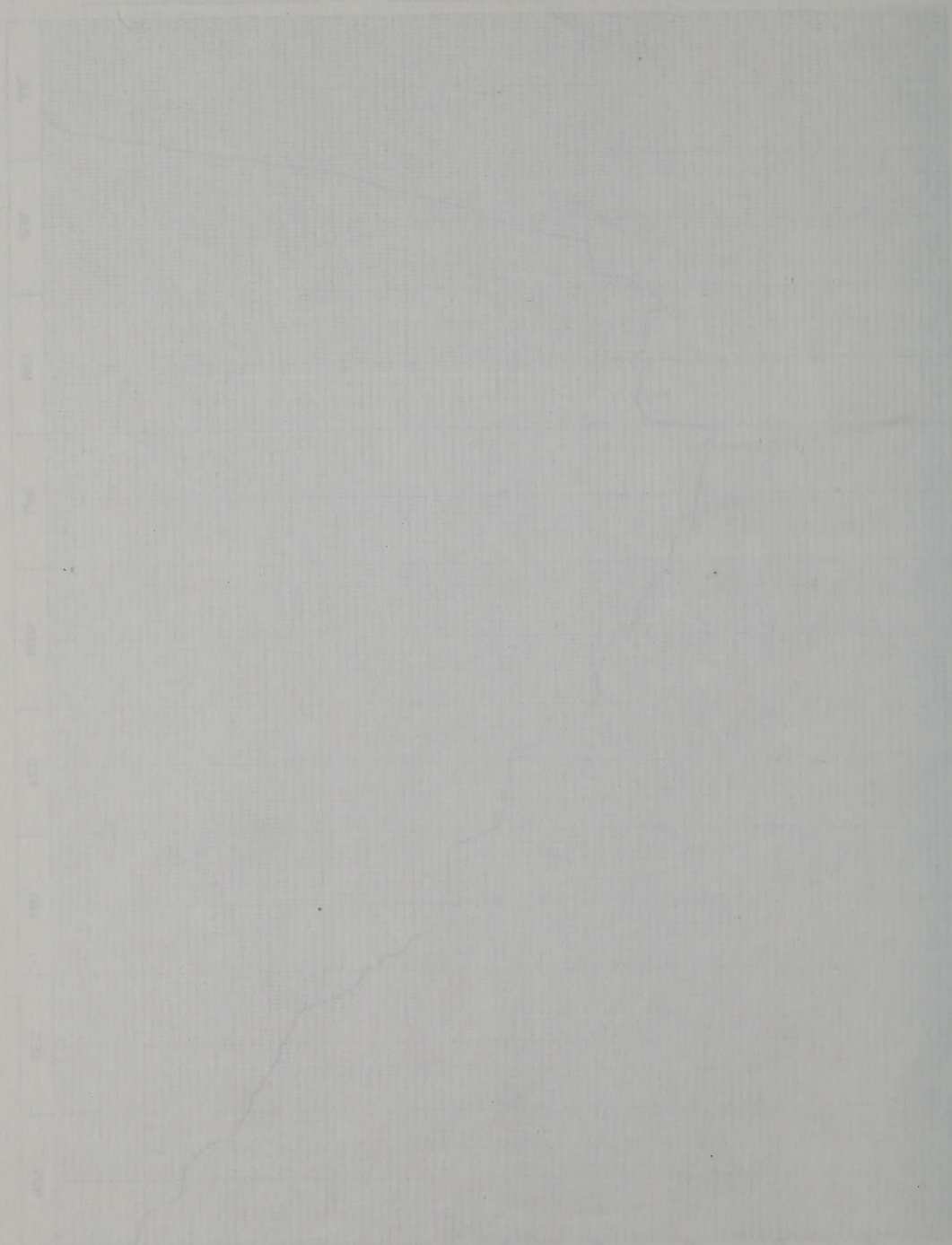
No. 9D06 Elev. 9100 Drainage: Yellowstone






U. S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE

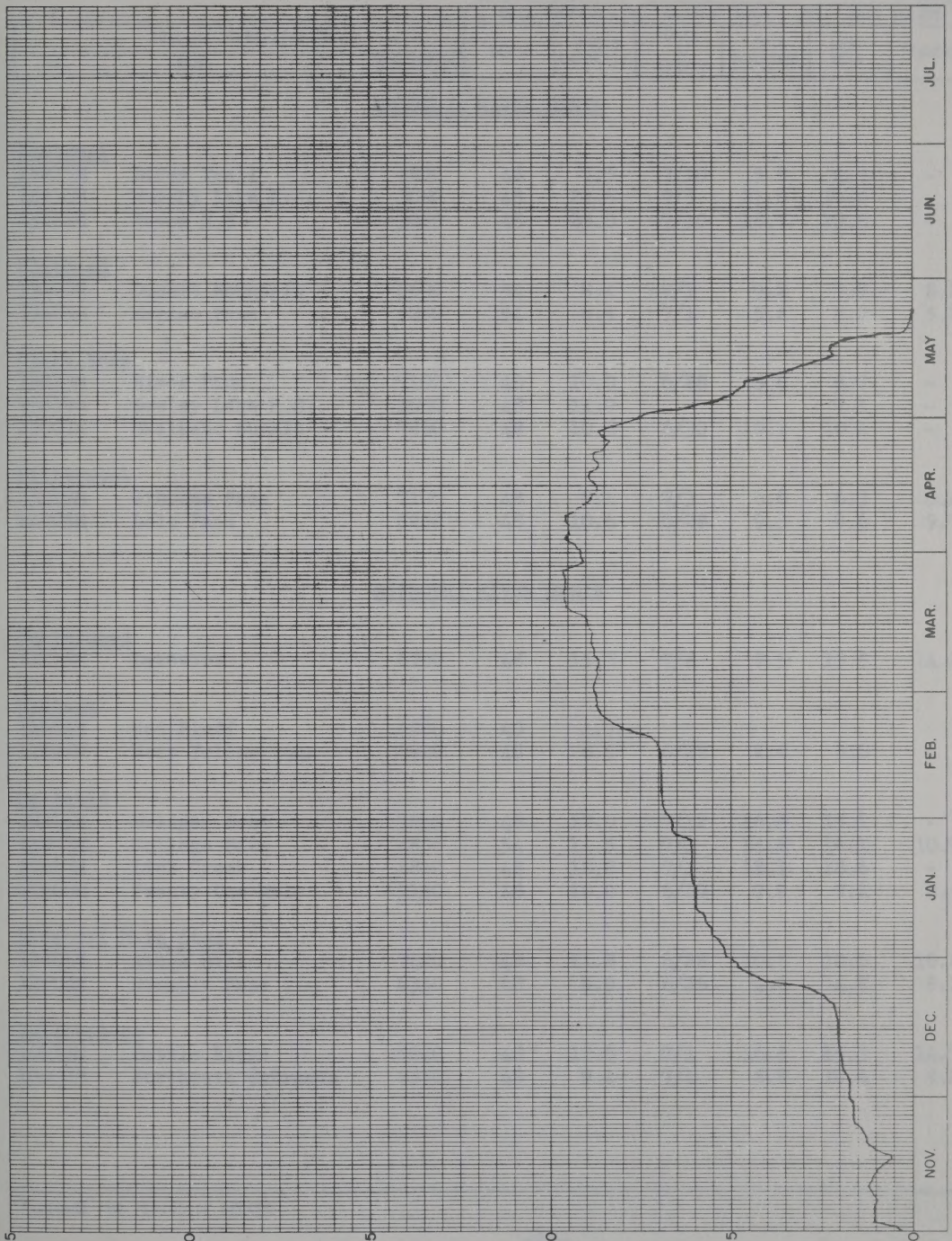
7-P-18764B-L



SNOW PILLOW DATA
WATER YEAR 1968

NORTHEAST ENTRANCE

No. 10D07 Elev. 7350 Drainage: Yellowstone



# SOIL MOISTURE DATA

AS OF JULY 1, 1968

(Inches)

| SOIL MOISTURE STATION | | | SOIL PROFILE | | CURRENT DATA | | PAST RECORD | |
|---|---|---|---|---|---|---|---|---|
| NO. | NAME | ELEVATION | DEPTH | FIELD CAPACITY | DATE OF SURVEY | SOIL MOISTURE | LAST YEAR | **AVERAGE |
| **COLUMBIA RIVER BASIN** | | | | | | | | |
| Kootenai | | | | | | | | |
| 15B15M | Baree Trail | 3800 | 48 | 7.5 | 7/10 | 5.5 | 4.5 | - |
| 14A10M | Murphy Lake R.S. | 3000 | 48 | 22.6 | 7/5 | 21.0 | 19.0 | - |
| 15A02M | Raven R.S. | 3050 | 48 | 23.0 | 7/10 | 18.7 | 20.8 | - |
| Flathead | | | | | | | | |
| 13A02M | Desert Mountain | 5600 | 54 | 8.4 | 7/1 | 9.2 | 7.9 | 8.2 |
| 13A05M | Marias Pass | 5250 | 54 | 6.5 | 7/1 | 5.4 | 5.7 | 5.2 |
| Clark Fork | | | | | | | | |
| 13C13M | Black Pine | 7100 | 48 | 10.0 | 6/28 | 8.8 | 8.7 | - |
| 13B19M | Seeley Lake R.S. | 4030 | 48 | 11.9 | | | 9.1 | - |
| 13C03M | Skalkaho Summit | 7260 | 48 | 10.8 | 6/30 | 10.2 | 10.4 | - |
| Bitterroot | | | | | | | | |
| 13D18M | Gibbons Pass | 7100 | 48 | 7.1 | 7/3 | 6.6 | 6.3 | 6.4 |
| 14C05M | Lolo Pass | 5250 | 48 | 10.6 | 6/28 | 9.3 | 9.6 | 9.7 |
| **MISSOURI RIVER BASIN** | | | | | | | | |
| Beaverhead | | | | | | | | |
| 11E13M | Lakeview | 6700 | 48 | 15.3 | 7/8 | 7.5 | 13.5 | 14.2 |
| Madison | | | | | | | | |
| 11D04M | Red Bluff | 4800 | 40 | 4.7 | | | | |
| 11E07M | West Yellowstone | 6700 | 48 | 6.5 | 6/28 | 2.6 | 3.6 | - |
| Gallatin | | | | | | | | |
| 10D15M | Bridger Bowl | 7250 | 48 | 17.0 | 7/12 | 16.8 | 15.1 | - |
| 11D02M | College Site | 4856 | 54 | 14.5 | 7/1 | 14.8 | 16.1 | 10.9 |
| 10D13M | Lick Creek | 6860 | 48 | 18.8 | 7/3 | 18.1 | 18.6 | - |
| 11E06M | Twenty-One Mile | 7150 | 48 | 10.0 | 6/29 | 7.9 | 9.4 | 8.5 |
| Missouri Main Stem | | | | | | | | |
| 10C01M | Kings Hill | 7420 | 48 | 11.8 | 6/28 | 10.8 | 10.6 | 10.8 |
| 12C08M | Stemple Pass | 6350 | 48 | 5.9 | 6/26 | 4.6 | 4.8 | 5.1 |
| Yellowstone | | | | | | | | |
| 10D11M | Battle Ridge | 6020 | 48 | 17.6 | 7/1 | 16.5 | 15.3 | 14.7 |
| 10D07M | Northeast Entrance | 7350 | 48 | 9.4 | 7/1 | 8.8 | 10.4 | 9.2 |

**AVERAGE FOR PERIOD OF RECORD

# SOIL MOISTURE DATA

AS OF JULY 1, 1966

| SOIL MOISTURE STATION | | SOIL CONDITION | | CURRENT CROP DATA | | PAST SEASON | |
|---|---|---|---|---|---|---|---|
| NO. | TYPE | LOCATION | DEPTH | TITLE OF SURVEY | PRESENT SOIL MOISTURE | PAST SOIL MOIST. | **PRECIP. |
| | | | | | | | |
| | | | | | | | |
| | | | | | | |

# SOIL MOISTURE DATA

AS OF AUGUST 1, 1968

(Inches)

| SOIL MOISTURE STATION | | | SOIL PROFILE | | CURRENT DATA | | PAST RECORD | |
|---|---|---|---|---|---|---|---|---|
| NO. | NAME | ELEVATION | DEPTH | FIELD CAPACITY | DATE OF SURVEY | SOIL MOISTURE | LAST YEAR | **AVERAGE |
| **COLUMBIA RIVER BASIN** | | | | | | | | |
| Kootenai | | | | | | | | |
| 15B15M | Baree Trail | 3800 | 48 | 7.5 | 8/11 | 3.3 | - | - |
| 14A10M | Murphy Lake R.S. | 3000 | 48 | 22.6 | 8/1 | 18.5 | 18.5 | - |
| 15A02M | Raven R.S. | 3050 | 48 | 23.0 | 8/1 | 16.8 | - | - |
| Flathead | | | | | | | | |
| 13A02M | Desert Mountain | 5600 | 54 | 8.4 | 8/1 | 6.4 | 6.2 | 6.2 |
| 13A05M | Marias Pass | 5250 | 54 | 6.5 | 7/31 | 4.1 | 3.4 | 3.8 |
| Clark Fork | | | | | | | | |
| 13C13M | Black Pine | 7100 | 48 | 10.0 | 7/22 | 8.6 | 8.7 | - |
| 13B19M | Seeley Lake R.S. | 4030 | 48 | 11.9 | | | - | - |
| 13C03M | Skalkaho Summit | 7260 | 48 | 10.8 | 7/22 | 10.5 | 10.6 | - |
| Bitterroot | | | | | | | | |
| 13D18M | Gibbons Pass | 7100 | 48 | 7.1 | 7/29 | 4.3 | 4.6 | 4.6 |
| 14C05M | Lolo Pass | 5250 | 48 | 10.6 | 8/1 | 5.4 | 5.5 | 6.1 |
| **MISSOURI RIVER BASIN** | | | | | | | | |
| Beaverhead | | | | | | | | |
| 11E13M | Lakeview | 6700 | 48 | 15.3 | 8/7 | 7.5 | 9.6 | 9.1 |
| Madison | | | | | | | | |
| 11D04M | Red Bluff | 4800 | 40 | 4.7 | 8/1 | 1.3 | 1.4 | 1.2 |
| 11E07M | West Yellowstone | 6700 | 48 | 6.5 | 7/30 | 1.9 | 2.8 | - |
| Gallatin | | | | | | | | |
| 10D15M | Bridger Bowl | 7250 | 48 | 17.0 | 8/3 | 15.6 | 15.1 | - |
| 11D02M | College Site | 4856 | 54 | 14.5 | 8/2 | 10.2 | 9.4 | 7.9 |
| 10D13M | Lick Creek | 6860 | 48 | 18.8 | 8/6 | 11.6 | 17.2 | - |
| 11E06M | Twenty-One Mile | 7150 | 48 | 10.0 | 7/30 | 4.2 | 7.9 | 5.3 |
| Missouri Main Stem | | | | | | | | |
| 10C01M | Kings Hill | 7420 | 48 | 11.8 | 7/26 | 9.4 | 8.8 | 9.1 |
| 12C08M | Stemple Pass | 6350 | 48 | 5.9 | 8/5 | 3.1 | 3.2 | 4.3 |
| Yellowstone | | | | | | | | |
| 10D11M | Battle Ridge | 6020 | 48 | 17.6 | 8/2 | 11.7 | 12.4 | 10.9 |
| 10D07M | Northeast Entrance | 7350 | 48 | 9.4 | 8/1 | 6.9 | 7.2 | 6.8 |

**AVERAGE FOR PERIOD OF RECORD

# SOIL MOISTURE DATA

## AS OF AUGUST 1, 1968

(inches)

| SOIL MOISTURE STATION | | | SOIL PROFILE | | CURRENT DATA | | PAST RECORD | |
|---|---|---|---|---|---|---|---|---|
| NO. | NAME | ELEVATION | DEPTH | FIELD CAPACITY | DATE OF SURVEY | SOIL MOISTURE | LAST YEAR | **AVERAGE |
| | **COLUMBIA RIVER BASIN** | | | | | | | |
| | **Kootenai** | | | | | | | |
| 15B15M | Bares Trail | 3800 | 48 | 7.5 | 8/11 | 3.3 | - | - |
| 14A10M | Murphy Lake R.S. | 3000 | 48 | 22.6 | 8/1 | 18.5 | 18.5 | - |
| 15A02M | Raven R.S. | 3050 | 48 | 23.0 | 8/1 | 16.8 | - | - |
| | **Flathead** | | | | | | | |
| 13A02M | Desert Mountain | 5600 | 54 | 8.4 | 8/1 | 6.4 | 6.2 | 6.1 |
| 13A05M | Marias Pass | 5250 | 54 | 6.5 | 7/31 | 4.1 | 3.4 | 3.8 |
| | **Clark Fork** | | | | | | | |
| 13C13M | Black Pine | 7100 | 48 | 10.0 | 7/22 | 8.6 | 8.7 | - |
| 13B15M | Seeley Lake R.S. | 4030 | 48 | 11.9 | | | - | - |
| 13C03M | Swaikeko Summit | 7260 | 48 | 10.8 | 7/22 | 10.5 | 10.6 | - |
| | **Bitterroot** | | | | | | | |
| 13D18M | Gibbons Pass | 7100 | 48 | 7.1 | 7/29 | 4.3 | 4.6 | 4.6 |
| 14C05M | Lolo Pass | 5250 | 48 | 10.6 | 8/1 | 5.4 | 5.5 | 6.1 |
| | **MISSOURI RIVER BASIN** | | | | | | | |
| | **Beaverhead** | | | | | | | |
| 11R13M | Lakeview | 6700 | 48 | 15.3 | 8/7 | 7.5 | 9.6 | 9.1 |
| | **Madison** | | | | | | | |
| 11D04M | Red Bluff | 4800 | 40 | 4.7 | 8/1 | 1.3 | 1.4 | 1.2 |
| 11E07M | West Yellowstone | 6700 | 48 | 6.5 | 7/30 | 1.9 | 2.8 | - |
| | **Gallatin** | | | | | | | |
| 10D15M | Bridger Bowl | 7250 | 48 | 17.0 | 8/3 | 15.6 | 15.1 | - |
| 11D02M | College Site | 4855 | 54 | 14.5 | 8/2 | 10.2 | 9.4 | 7.9 |
| 10D13M | Lick Creek | 6860 | 48 | 18.8 | 8/6 | 11.6 | 17.2 | - |
| 11E06M | Twenty-One Mile | 7150 | 48 | 10.0 | 7/30 | 4.2 | 7.9 | 5.3 |
| | **Missouri Main Stem** | | | | | | | |
| 10C01M | Kings Hill | 7420 | 48 | 11.8 | 7/26 | 9.4 | 8.8 | 9.1 |
| 12C08M | Stemple Pass | 6350 | 48 | 5.9 | 8/5 | 3.1 | 3.2 | 4.3 |
| | **Yellowstone** | | | | | | | |
| 10D11M | Battle Ridge | 6020 | 48 | 17.6 | 8/2 | 11.7 | 12.4 | 10.9 |
| 10D07M | Northeast Entrance | 7350 | 48 | 9.4 | 8/1 | 6.9 | 7.2 | 5.8 |

**AVERAGE FOR PERIOD OF RECORD

# SOIL MOISTURE DATA

## AS OF SEPTEMBER 1, 1968

(Inches)

| SOIL MOISTURE STATION | | | SOIL PROFILE | | CURRENT DATA | | PAST RECORD | |
|---|---|---|---|---|---|---|---|---|
| NO. | NAME | ELEVATION | DEPTH | FIELD CAPACITY | DATE OF SURVEY | SOIL MOISTURE | LAST YEAR | **AVERAGE |
| | | | **COLUMBIA RIVER BASIN** | | | | | |
| Kootenai | | | | | | | | |
| 15B15M | Baree Trail | 3800 | 48 | 7.5 | 9/4 | 5.5 | - | - |
| 14A10M | Murphy Lake R.S. | 3000 | 48 | 22.6 | 9/3 | 19.3 | 17.8 | - |
| 15A02M | Raven R.S. | 3050 | 48 | 23.0 | 9/4 | 18.0 | - | - |
| Flathead | | | | | | | | |
| 13A02M | Desert Mountain | 5600 | 54 | 8.4 | 8/30 | 7.8 | 4.8 | 5.0 |
| 13A05M | Marias Pass | 5250 | 54 | 6.5 | 9/1 | 4.0 | 2.8 | 3.5 |
| Clark Fork | | | | | | | | |
| 13C13M | Black Pine | 7100 | 48 | 10.0 | 8/26 | 8.8 | 7.8 | - |
| 13B19M | Seeley Lake R.S. | 4030 | 48 | 11.9 | | | 4.4 | - |
| 13C03M | Skalkaho Summit | 7260 | 48 | 10.8 | 8/26 | 10.5 | 9.2 | - |
| Bitterroot | | | | | | | | |
| 13D18M | Gibbons Pass | 7100 | 48 | 7.1 | 8/27 | 5.0 | 2.9 | 4.5 |
| 14C05M | Lolo Pass | 5250 | 48 | 10.6 | | | 4.1 | 4.6 |
| | | | **MISSOURI RIVER BASIN** | | | | | |
| Beaverhead | | | | | | | | |
| 11E13M | Lakeview | 6700 | 48 | 15.3 | 9/3 | 8.2 | - | 6.6 |
| Madison | | | | | | | | |
| 11D04M | Red Bluff | 4800 | 40 | 4.7 | | | - | - |
| 11E07M | West Yellowstone | 6700 | 48 | 6.5 | 9/1 | 3.1 | 1.9 | - |
| Gallatin | | | | | | | | |
| 10D15M | Bridger Bowl | 7250 | 48 | 17.0 | 8/30 | 16.6 | 15.1 | - |
| 11D02M | College Site | 4856 | 54 | 14.5 | 8/30 | 9.7 | 8.6 | 7.2 |
| 10D13M | Lick Creek | 6860 | 48 | 18.8 | 8/29 | 17.0 | 15.1 | - |
| 11E06M | Twenty-One Mile | 7150 | 48 | 10.0 | 9/1 | 8.0 | 4.0 | 2.9 |
| Missouri Main Stem | | | | | | | | |
| 10C01M | Kings Hill | 7420 | 48 | 11.8 | 8/30 | 9.0 | 6.5 | 8.1 |
| 12C08M | Stemple Pass | 6350 | 48 | 5.9 | 9/2 | 3.6 | 2.6 | 4.2 |
| Yellowstone | | | | | | | | |
| 10D11M | Battle Ridge | 6020 | 48 | 17.6 | 8/30 | 13.5 | 8.4 | 9.1 |
| 10D07M | Northeast Entrance | 7350 | 48 | 9.4 | 9/4 | 9.3 | 4.1 | 5.4 |

**AVERAGE FOR PERIOD OF RECORD

# SOIL MOISTURE DATA

## AS OF SEPTEMBER 1, 1968

(Inches)

| SOIL MOISTURE STATION | | | SOIL PROFILE | | CURRENT DATA | | PAST RECORD | |
|---|---|---|---|---|---|---|---|---|
| NO. | NAME | ELEVATION | DEPTH | FIELD CAPACITY | DATE OF SURVEY | SOIL MOISTURE | LAST YEAR | **AVERAGE |
| | **COLUMBIA RIVER BASIN** | | | | | | | |
| | **Kootenai** | | | | | | | |
| 15B15M | Barren Trail | 3800 | 48 | 7.5 | 9/4 | 5.5 | - | - |
| 14A10M | Murphy Lake R.S. | 3000 | 48 | 22.6 | 9/3 | 19.3 | 17.8 | - |
| 15A02M | Raven R.S. | 3050 | 48 | 23.0 | 9/4 | 18.0 | - | - |
| | **Flathead** | | | | | | | |
| 13A02M | Desert Mountain | 5600 | 54 | 8.4 | 8/30 | 7.8 | 4.8 | 3.0 |
| 13A05M | Marias Pass | 5250 | 54 | 6.5 | 9/1 | 4.0 | 2.8 | 3.5 |
| | **Clark Fork** | | | | | | | |
| 13C13M | Black Pine | 7100 | 48 | 10.0 | 8/26 | 8.8 | 7.8 | - |
| 13B19M | Seeley Lake R.S. | 4030 | 48 | 11.9 | | | 4.4 | - |
| 13C03M | Skalkaho Summit | 7260 | 48 | 10.8 | 8/26 | 10.5 | 9.2 | - |
| | **Bitterroot** | | | | | | | |
| 13D18M | Gibbons Pass | 7100 | 48 | 7.1 | 8/27 | 5.0 | 2.9 | 4.5 |
| 14C05M | Lolo Pass | 5250 | 48 | 10.6 | | | 4.1 | 4.6 |
| | **MISSOURI RIVER BASIN** | | | | | | | |
| | **Beaverhead** | | | | | | | |
| 11E13M | Lakeview | 6700 | 48 | 15.3 | 9/3 | 8.2 | - | 6.6 |
| | **Madison** | | | | | | | |
| 11E06M | Red Bluff | 4800 | 40 | 4.7 | | | - | - |
| 11E07M | West Yellowstone | 6700 | 48 | 6.5 | 9/1 | 3.1 | 1.9 | - |
| | **Gallatin** | | | | | | | |
| 10D15M | Bridger Bowl | 7250 | 48 | 17.0 | 8/30 | 16.6 | 15.1 | - |
| 11D02M | College Site | 4850 | 54 | 14.5 | 8/30 | 9.7 | 8.6 | 7.2 |
| 10D13M | Lick Creek | 6860 | 48 | 18.8 | 8/29 | 17.0 | 15.1 | - |
| 11E06M | Twenty-One Mile | 7150 | 48 | 10.0 | 9/1 | 8.0 | 4.0 | 2.9 |
| | **Missouri Main Stem** | | | | | | | |
| 10C01M | Kings Hill | 7420 | 48 | 11.8 | 8/30 | 9.0 | 6.5 | 8.1 |
| 12C08M | Stemple Pass | 6350 | 48 | 5.9 | 9/2 | 3.6 | 2.6 | 4.2 |
| | **Yellowstone** | | | | | | | |
| 10D11M | Battle Ridge | 6020 | 48 | 17.6 | 8/30 | 13.5 | 8.4 | 9.1 |
| 10D07M | Northeast Entrance | 7350 | 48 | 9.4 | 9/4 | 9.3 | 4.1 | 5.4 |

**AVERAGE FOR PERIOD OF RECORD

# SOIL MOISTURE DATA

AS OF OCTOBER 1, 1968

(Inches)

| SOIL MOISTURE STATION | | | SOIL PROFILE | | CURRENT DATA | | PAST RECORD | |
|---|---|---|---|---|---|---|---|---|
| NO. | NAME | ELEVATION | DEPTH | FIELD CAPACITY | DATE OF SURVEY | SOIL MOISTURE | LAST YEAR | **AVERAGE |
| **COLUMBIA RIVER BASIN** | | | | | | | | |
| Kootenai | | | | | | | | |
| 15B15M | Baree Trail | 3800 | 48 | 7.5 | | | 4.6 | - |
| 14A10M | Murphy Lake R.S. | 3000 | 48 | 22.6 | | | 18.3 | - |
| 15A02M | Raven R.S. | 3050 | 48 | 23.0 | | | 18.0 | - |
| Flathead | | | | | | | | |
| 13A02M | Desert Mountain | 5600 | 54 | 8.4 | 9/30 | 8.8 | 6.0 | 5.5 |
| 13A05M | Marias Pass | 5250 | 54 | 6.5 | 10/1 | 6.4 | 2.5 | 3.7 |
| Clark Fork | | | | | | | | |
| 13C13M | Black Pine | 7100 | 48 | 10.0 | 9/26 | 8.5 | 7.4 | - |
| 13B19M | Seeley Lake R.S. | 4030 | 48 | 11.9 | | | | |
| 13C03M | Skalkaho Summit | 7260 | 48 | 10.8 | 9/26 | 10.7 | 10.3 | - |
| Bitterroot | | | | | | | | |
| 13D18M | Gibbons Pass | 7100 | 48 | 7.1 | 9/30 | 6.5 | 2.3 | 4.7 |
| 14C05M | Lolo Pass | 5250 | 48 | 10.6 | 10/2 | 7.1 | 3.1 | 5.0 |
| **MISSOURI RIVER BASIN** | | | | | | | | |
| Beaverhead | | | | | | | | |
| 11E13M | Lakeview | 6700 | 48 | 15.3 | 10/1 | 6.1 | 4.8 | 5.8 |
| Madison | | | | | | | | |
| 11D04M | Red Bluff | 4800 | 40 | 4.7 | | | 1.9 | - |
| 11E07M | West Yellowstone | 6700 | 48 | 6.5 | 9/28 | 3.4 | 1.8 | - |
| Gallatin | | | | | | | | |
| 10D15M | Bridger Bowl | 7250 | 48 | 17.0 | 10/3 | 16.6 | 15.1 | - |
| 11D02M | College Site | 4856 | 54 | 14.5 | 9/29 | 9.3 | 7.9 | 7.4 |
| 10D13M | Lick Creek | 6860 | 48 | 18.8 | 9/30 | 17.9 | - | - |
| 11E06M | Twenty-One Mile | 7150 | 48 | 10.0 | 9/28 | 7.8 | 2.5 | 3.1 |
| Missouri Main Stem | | | | | | | | |
| 10C01M | Kings Hill | 7420 | 48 | 11.8 | 9/27 | 10.0 | 5.2 | 7.5 |
| 12C08M | Stemple Pass | 6350 | 48 | 5.9 | 9/30 | 5.0 | 1.9 | 3.7 |
| Yellowstone | | | | | | | | |
| 10D11M | Battle Ridge | 6020 | 48 | 17.6 | 10/3 | 13.8 | 9.4 | 9.9 |
| 10D07M | Northeast Entrance | 7350 | 48 | 9.4 | 10/2 | 9.4 | 3.7 | 6.3 |

**AVERAGE FOR PERIOD OF RECORD

# SOIL MOISTURE DATA

## AS OF OCTOBER 1, 1968

(Inches)

| SOIL MOISTURE STATION | | SOIL PROFILE | | CURRENT DATA | | PREVIOUS YEAR |
|---|---|---|---|---|---|---|
| NO. | NAME | DEPTH | FIELD CAPACITY | DATE OF SURVEY | SOIL MOISTURE | LAST YEAR | **AVERAGE |

### COLUMBIA RIVER BASIN

**Yakima**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 12B12M | Nerve Tract | 2800 | 48 | 7.5 | | | 4.6 | - |
| 12A10M | Murphy Lake R.S. | 3000 | 48 | 22.6 | | | 18.3 | - |
| 12A00M | Raven R.S. | 3650 | 48 | 23.0 | | | 18.0 | - |

**Flathead**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 13A02M | Desert Mountain | 5600 | 54 | 8.4 | 9/30 | 8.8 | 6.0 | 5.5 |
| 13A05M | Marias Pass | 5250 | 54 | 6.5 | 10/1 | 6.4 | 2.5 | 3.7 |

**Clark Fork**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 13C13M | Black Pine | 7100 | 48 | 10.0 | 9/26 | 8.5 | 7.4 | - |
| 13B10M | Swamp Lake R.S. | 4030 | 48 | 11.9 | | | | |
| 13C00M | Pike Lake Summit | 7560 | 48 | 10.8 | 9/26 | 10.7 | 10.3 | - |

**Bitterroot**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 13D13M | Gibbons Pass | 7100 | 48 | 7.1 | 9/30 | 6.5 | 2.3 | 4.7 |
| 14D05M | Lolo Pass | 5250 | 48 | 10.5 | 10/2 | 7.1 | 3.1 | 5.0 |

### MISSOURI RIVER BASIN

**Beaverhead**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 11E13M | Lakeview | 6700 | 48 | 15.3 | 10/1 | 6.1 | 4.0 | 9.8 |

**Madison**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 11D04M | Red Bluff | 4800 | 40 | 4.7 | | | 1.9 | - |
| 11D07M | West Yellowstone | 6700 | 48 | 6.3 | 9/28 | 3.4 | 1.8 | - |

**Gallatin**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 12D13M | Bridger Bowl | 7250 | 48 | 17.0 | 10/3 | 16.6 | 15.1 | - |
| 11D02M | Oshiego Site | 4876 | 54 | 14.5 | 9/29 | 9.3 | 7.9 | 7.4 |
| 12D01M | Lick Creek | 6860 | 48 | 18.8 | 9/30 | 17.9 | - | - |
| 11B06M | Pentry-Cow Mile | 7150 | 48 | 10.0 | 9/28 | 7.8 | 2.5 | 3.3 |

**Missouri Main Stem**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 12D01M | Bridge Hill | 7430 | 48 | 11.8 | 9/27 | 10.0 | 5.2 | 7.5 |
| 12D06M | Stemple Pass | 6350 | 48 | 5.0 | 9/30 | 3.0 | 1.0 | 3.7 |

**Yellowstone**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 12D01M | Bottle Ridge | 6020 | 48 | 17.6 | 10/3 | 13.8 | 9.4 | 9.9 |
| 12C09M | Mountain Autumn | 7350 | 48 | 9.4 | 10/2 | 9.4 | 3.7 | 6.3 |

**Average for period of record

# RESERVOIR STORAGE DATA

AS OF SEPTEMBER 30, 1968

(1000 Acre Feet)

| BASIN | RESERVOIR | USEABLE CAPACITY | USEABLE STORAGE THIS YEAR | USEABLE STORAGE LAST YEAR | USEABLE STORAGE AVERAGE |
|---|---|---|---|---|---|
| **COLUMBIA RIVER BASIN** | | | | | |
| Flathead | Hungry Horse | 3,428.0 | 3,428.0 | 3,196.0 | 3,392.9** |
| | Flathead Lake | 1,791.0 | 1,785.0 | 1,772.0 | 1,683.3 |
| | Camas (Sum of 4) | 45.2 | 11.4 | 20.9 | 29.2 |
| | Mission Valley (Sum of 8) | 100.3 | 85.3 | 6.9 | 17.0 |
| Clark Fork | Georgetown Lake | 31.0 | 30.4 | 28.7 | 26.5 |
| | Noxon Rapids | 334.6 | 331.4 | 324.0 | - |
| Bitterroot | Como | 34.9 | 5.8 | 0.0 | 2.9 |
| | Painted Rocks | 31.7 | 31.5 | 25.1 | 27.2 |
| **MISSOURI RIVER BASIN** | | | | | |
| Beaverhead | Clark Canyon | 328.9 | 140.2 | 134.1 | - |
| | Lima | 84.0 | 42.1 | 39.4 | 18.5 |
| Ruby | Ruby | 38.8 | | - | 7.1** |
| Madison | Hebgen Lake | 377.5 | 331.5 | 310.4 | 262.6 |
| | Ennis Lake | 41.0 | 39.7 | 39.3 | 37.3 |
| Gallatin | Middle Creek | 8.0 | 5.4 | 2.7 | 2.5** |
| Missouri | Canyon Ferry | 2,043.0 | 1,861.0 | 1,709.0 | 1,742.1** |
| | Hauser & Helena | 61.9 | 60.7 | 60.7 | 58.6 |
| | Lake Helena | 10.4 | 10.0 | 10.0 | 9.5 |
| | Holter Lake | 81.9 | 77.2 | 79.5 | 74.7 |
| | Smith River | 10.7 | | 5.3 | 3.7** |
| | Durand | 7.0 | | 2.2 | 3.9 |
| | Martinsdale | 23.1 | | 10.5 | 7.5 |
| | Deadman's Basin | 72.2 | | 50.0 | 28.1** |
| | Fort Peck | 19,410.0 | 17,370.0 | 17,440.0 | 11,308.3 |
| Sun | Gibson | 105.0 | 38.1 | 23.4 | 39.1 |
| | Willow Creek | 32.3 | 20.5 | 15.6 | 18.2 |
| | Pishkun | 32.0 | 18.5 | 7.3 | 20.1 |
| Marias | Lower Two Medicine | - | - | - | 4.8 |
| | Four Horns | 19.2 | 13.5 | 11.4 | 10.2 |
| | Swift | 30.0 | 16.7 | 5.0 | 14.2 |
| | Lake Frances | 112.0 | 67.0 | 71.1 | 90.8 |
| | Tiber | 1,347.0 | 466.1 | 605.2 | 684.9** |
| Milk | Fresno | 127.2 | 107.6 | 75.8 | 61.1 |
| | Nelson | 66.8 | 51.0 | 38.5 | 38.8 |
| | Lake Sherburne | 66.1 | 3.3 | 20.9 | 20.3 |
| Yellowstone | Mystic Lake | 20.8 | 20.2 | 20.9 | 8.8 |
| | Tongue River | 68.0 | 40.0 | 26.9 | 20.6 |
| | Cooney | 27.5 | 18.8 | 13.6 | 12.0 |
| Big Horn | Yellowtail | 1,356.0 | 829.4 | 1,052.0 | - |

NOTE: ALL AVERAGES BASED ON 1948-1962 (15 YEAR PERIOD). **AVERAGE FOR PERIOD OF RECORD

# RESERVOIR STORAGE DATA

AS OF SEPTEMBER 30, 1968

(1000 Acre Feet)

| BASIN | RESERVOIR | USEABLE CAPACITY | USEABLE STORAGE THIS YEAR | USEABLE STORAGE LAST YEAR | USEABLE STORAGE AVERAGE |
|---|---|---|---|---|---|
| **COLUMBIA RIVER BASIN** | | | | | |
| Flathead | Hungry Horse | 3,428.0 | 3,428.0 | 3,196.0 | 3,392.9** |
| | Flathead Lake | 1,791.0 | 1,785.0 | 1,772.0 | 1,683.3 |
| | Camas (Sum of 4) | 45.2 | 11.4 | 20.9 | 29.2 |
| | Mission Valley (Sum of 8) | 100.3 | 85.3 | 6.9 | 17.0 |
| Clark Fork | Georgetown Lake | 31.0 | 30.4 | 28.7 | 26.5 |
| | Noxon Rapids | 334.6 | 331.4 | 324.0 | - |
| Bitterroot | Como | 34.9 | 5.8 | 0.0 | 2.9 |
| | Painted Rocks | 31.7 | 31.5 | 25.1 | 27.2 |
| **MISSOURI RIVER BASIN** | | | | | |
| Beaverhead | Clark Canyon | 328.9 | 140.2 | 134.1 | - |
| | Lima | 84.0 | 42.1 | 39.4 | 18.5 |
| Ruby | Ruby | 38.8 | | - | 7.1** |
| Madison | Hebgen Lake | 377.5 | 331.5 | 310.4 | 262.6 |
| | Ennis Lake | 41.0 | 39.7 | 39.3 | 37.3 |
| Gallatin | Middle Creek | 8.0 | 5.4 | 2.7 | 2.5** |
| Missouri | Canyon Ferry | 2,043.0 | 1,861.0 | 1,709.0 | 1,742.1** |
| | Hauser & Helena | 61.9 | 60.7 | 60.7 | 58.6 |
| | Lake Helena | 10.4 | 10.0 | 10.0 | 9.5 |
| | Holter Lake | 81.9 | 77.2 | 79.5 | 74.7 |
| | Salto River | 10.7 | | 5.3 | 3.7** |
| | Durand | 7.0 | | 2.2 | 3.9 |
| | Martinsdale | 23.1 | | 10.5 | 7.5 |
| | Beaman's Basin | 72.2 | | 50.0 | 28.1** |
| | Fort Peck | 19,410.0 | 17,370.0 | 17,440.0 | 11,308.3 |
| Sun | Gibson | 105.0 | 38.1 | 23.4 | 39.1 |
| | Willow Creek | 32.3 | 20.5 | 15.6 | 18.2 |
| | Pishkun | 32.0 | 18.5 | 7.3 | 20.1 |
| Marias | Lower Two Medicine | - | - | - | 4.8 |
| | Four Horns | 19.2 | 13.5 | 11.4 | 10.2 |
| | Swift | 30.0 | 16.7 | 5.0 | 14.2 |
| | Lake Frances | 112.0 | 67.0 | 71.1 | 90.8 |
| | Tiber | 1,347.0 | 466.1 | 605.2 | 682.9** |
| Milk | Fresno | 127.2 | 107.6 | 75.8 | 61.1 |
| | Nelson | 66.8 | 51.0 | 38.5 | 38.8 |
| | Lake Sherburne | 66.1 | 3.3 | 20.9 | 20.3 |
| Yellowstone | Mystic Lake | 20.8 | 20.2 | 20.9 | 8.8 |
| | Tongue River | 68.0 | 40.0 | 26.9 | 20.6 |
| | Cooney | 27.5 | 18.8 | 13.6 | 12.0 |
| Big Horn | Yellowtail | 1,356.0 | 829.4 | 1,052.0 | - |

NOTE: ALL AVERAGES BASED ON 1948-1968 (10 YEAR PERIOD). **AVERAGE FOR PERIOD OF RECORD

# Agencies and Organizations Cooperating in Montana Snow Surveys

U. S. Forest Service
Region 1, Missoula, Montana
Montana Forests and Ranger Districts

U. S. Geological Survey
Helena, Montana
Portland, Oregon

U. S. Army Corps of Engineers
Portland, Oregon
Seattle, Washington
Walla Walla, Washington
Omaha, Nebraska

U. S. Indian Irrigation Service
St. Ignatius, Montana

U. S. Weather Bureau
Helena, Montana
Portland, Oregon
Kansas City, Missouri

U. S. Bureau of Sports Fisheries and Wildlife
Red Rock Lakes Refuge
Monida, Montana

U. S. Bureau of Reclamation
Billings, Montana
Boise, Idaho

U. S. Bonneville Power Administration
Portland, Oregon

U. S. Soil Conservation Service
Montana, Wyoming, Idaho

Soil and Water Conservation Districts
Montana Counties

U. S. National Park Service
Yellowstone National Park
Glacier National Park

Montana Power Company
Butte, Montana

Montana Water Resources Board
Helena, Montana

North Montana Branch Station
Agricultural Experiment Station
Havre, Montana

Montana State University
Agricultural Experiment Station
Bozeman, Montana

University of Montana
School of Forestry
Missoula, Montana

Water Rights Branch, Dept. of Lands and Forests
Victoria, British Columbia

Department of Energy, Mines and Resources
Calgary, Alberta

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
P. O. Box 98
Bozeman, Montana 59715

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# COOPERATIVE SNOW SURVEYS

Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation , navigation , mining and industry

*"The Conservation of Water begins with the Snow Survey"*